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**NORTH LOUP DIVISION, MISSOURI RIVER
BASIN PROJECT, NEBRASKA**

GOVERNMENT

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DOCUMENTS

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HEARING

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BEFORE THE

**SUBCOMMITTEE ON
WATER AND POWER RESOURCES**

OF THE

**COMMITTEE ON
INTERIOR AND INSULAR AFFAIRS**

UNITED STATES SENATE

NINETY-SECOND CONGRESS

SECOND SESSION

ON

S. 352

TO AUTHORIZE THE SECRETARY OF THE INTERIOR TO CON-
STRUCT, OPERATE, AND MAINTAIN THE NORTH LOUP
DIVISION, MISSOURI RIVER BASIN PROJECT, NEBRASKA, AND
FOR OTHER PURPOSES

S. 2350

TO AUTHORIZE THE SECRETARY OF THE INTERIOR TO CON-
STRUCT, OPERATE, AND MAINTAIN THE NORTH LOUP DIVI-
SION, MISSOURI RIVER BASIN PROJECT, NEBRASKA, AND
FOR OTHER PURPOSES

MARCH 20, 1972



Printed for the use of the Committee on Interior and Insular Affairs

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NORTH LOUP DIVISION, MISSOURI RIVER BASIN PROJECT, NEBRASKA

MONDAY, MARCH 20, 1972

U.S. SENATE,
SUBCOMMITTEE ON WATER AND POWER OF THE
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS
Washington, D.C.

The committee met, pursuant to notice at 10 a.m., in room 3110, New Senate Office Building, Senator Quentin N. Burdick, presiding.
Present: Senator Burdick.

Also present: Jerry T. Verkler, staff director; William J. Van Ness, chief counsel; Daniel Dreyfus, professional staff member; and Charles Cook, minority counsel.

Senator BURDICK. The purpose of this hearing before the Subcommittee on Water and Power this morning is to take testimony on S. 352 and S. 2350, bills introduced by the Senators from Nebraska, to authorize the Secretary of the Interior to construct, operate, and maintain the North Loup Division, Missouri River Basin project, Nebraska, and for other purposes.

The proposed North Loup division is located in central Nebraska. The project would provide irrigation water service to some 52,600 acres and would also provide fish and wildlife conservation and public recreation benefits.

The texts of the bills and reports of the executive agencies will be included in the record at this point.

(The bills and reports follow:)

[S.352, 92nd Cong., first sess.]

A BILL To authorize the Secretary of the Interior to construct, operate, and maintain the North Loup division, Missouri River Basin project, Nebraska, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the North Loup division is hereby authorized as a unit of the Missouri River Basin project for the purposes of providing irrigation water for approximately fifty-two thousand five hundred and seventy acres of land, enhancing recreation opportunities, conserving and developing fish and wildlife resources, and for other purposes. The construction, operation, and maintenance of the North Loup division shall be in accordance with the Federal reclamation laws (Act of June 17, 1902, (32 Stat. 388), and Acts amendatory thereof or supplementary thereto). The principal features of the division shall include Calamus Dam and Reservoir on the Calamus River, Davis Creek Dam and Reservoir on Davis Creek, the necessary diversion facilities, pumping facilities, canals, laterals, drains, and other works needed to effect the aforesaid purposes.

SEC. 2. The conservation and development of the fish and wildlife resources and the enhancement of recreation opportunities in connection with the North Loup division shall be in accordance with provisions of the Federal Water Project Recreation Act (79 Stat. 213).

SEC. 3. North Loup division shall be integrated physically and financially with the other Federal works constructed under the comprehensive plan approved by section 9 of the Flood Control Act of December 22, 1944, as amended and supplemented.

SEC. 4. For a period of ten years from the date of enactment of this Act, no water from the unit authorized by this Act shall be delivered to any water user for the production on newly irrigated lands of any basic agricultural commodity, as defined in the Agricultural Act of 1949, or any amendment thereof, if the total supply of such commodity for the marketing year in which the bulk of the crop would normally be marketed is in excess of the normal supply as defined in section 301(b)(10) of the Agricultural Adjustment Act of 1938, as amended, unless the Secretary of Agriculture calls for an increase in production of such commodity in the interest of national security.

SEC. 5. The interest rate used for purposes of computing interest during construction and interest on the unpaid balance of the capital costs allocated to interest-bearing features of the project shall be determined by the Secretary of the Treasury, as of the beginning of the fiscal year in which construction is initiated, on the basis of the computed average interest rate payable by the Treasury upon its outstanding marketable public obligations, which are neither due nor callable for redemption for fifteen years from date of issue.

SEC. 6. There is hereby authorized to be appropriated such sums as are necessary to carry out the purposes of this Act.

[S.2350, 92nd Cong., first sess.]

A Bill To authorize the Secretary of the Interior to construct, operate, and maintain the North Loup division, Missouri River Basin project, Nebraska, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the North Loup division is hereby authorized as a unit of the Missouri River Basin project for the purposes of providing irrigation water for approximately fifty-two thousand five hundred and seventy acres of land, enhancing recreation opportunities, conserving and developing fish and wildlife resources, and for other purposes. The construction, operation, and maintenance of the North Loup division shall be in accordance with the Federal reclamation laws (Act of June 17, 1902 (32 Stat. 388), and Acts amendatory thereof or supplementary thereto). The principal features of the division shall include Calamus Dam and Reservoir on the Calamus River, Davis Creek Dam and Reservoir on Davis Creek, the necessary diversion facilities, pumping facilities, canals, laterals, drains, and other works needed to effect the aforesaid purposes.

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SEC. 5. The interest rate used for purposes of computing interest during construction and interest on the unpaid balance of the capital costs allocated to interest-bearing features of the project shall be determined by the Secretary of the Treasury, as of the beginning of the fiscal year in which construction is initiated, on the basis of the computed average interest rate payable by the

Treasury upon its outstanding marketable public obligations, which are neither due nor callable for redemption for fifteen years from date of issue.

SEC. 6. The North Loup division shall be so constructed and operated that no water shall be diverted from either the Calamus or the North Loup Rivers for any use by the division during the months of July and August each year; and no water shall be diverted from said rivers during the month of September each year whenever during said month there is sufficient water available in the division storage reservoirs to deliver the design capacity of the canals receiving water from said reservoirs.

SEC. 7. There is hereby authorized to be appropriated for construction of the North Loup division as authorized in this Act the sum of \$73,400,000 (based upon October 1970 prices), plus or minus such amounts, if any, as may be justified by reason of ordinary fluctuations in construction costs as indicated by engineering costs indexes applicable to the types of construction involved herein. There are also authorized to be appropriated such additional sums as may be required for operation and maintenance of the division.

UNITED STATES DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., February 2, 1972.

HON. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate,
Washington, D.C.

DEAR MR. CHAIRMAN: This responds to your request for the views of this Department on S. 2350 and on S. 352, bills authorizing construction by the Secretary of the Interior of the North Loup division, Nebraska, of the Missouri River Basin project.

We recommend enactment of the enclosed draft of proposed legislation, which is similar in major respects to S. 352 and S. 2350 except as pointed out below.

The division is a proposed multipurpose water resource development in the basins of the Calamus, North Loup, and Loup Rivers in central Nebraska. Flows of the North Loup and Calamus Rivers would be developed for irrigation, outdoor recreation opportunities, and fish and wildlife enhancement.

Portions of the North Loup division were contemplated for development in S. Doc. 191, 78th Congress, and were authorized as an integral part of the Missouri River Basin project by the Flood Control Acts of 1944 and 1946. Subsequent investigations disclosed desirable modifications in the original plans which were presented in the Secretary's report of July 25, 1962, to the Congress (H. Doc. No. 491, 87th Cong.).

We have since prepared a reevaluation statement on the division, dated February 1971, which modifies the plan of development and operation presented in H. Doc. 491 and updates the estimated costs and the economic and financial analyses associated therewith. This reevaluation statement, a copy of which will be forwarded to the Committee shortly, supplements and modifies the Secretary's report previously submitted to the Congress. Reauthorization of the division is required by the provisions of the Act of August 14, 1964 (78 Stat. 446).

The plan of development does not include as objectives flood control, hydroelectric power generation, or provision of municipal and industrial water supplies. Floods on the North Loup River are not a serious problem, and storage regulation would provide insignificant flood control benefits. Development of hydroelectric power was found to be uneconomical. Regional needs for municipal and industrial water supplies can be met more economically by other means.

The division involves an area where the predominantly agricultural economy has suffered periodically from uncertain natural moisture conditions. This has tended to limit dependable farm income and has adversely affected the interdependent urban economy. Lack of both job opportunities in the towns and stable employment on the farms has resulted in substantial migration from the

area, particularly by the younger people. Construction of the division would have a favorable economic and social impact in the area, and the proposal has strong local support. The potential water users have formed the Twin Loups Reclamation and Irrigation Districts to support authorization of the division and to assume responsibility for operations and the repayment of reimbursable costs.

The principal structures proposed for the division include the Calamus Dam and Reservoir on the Calamus River near Burwell, Nebraska, the off-channel Davis Creek Dam and Reservoir, and the Kent Diversion works on the North Loup River near Burwell. Total capacities of the two storage reservoirs would be 128,200 and 32,500 acre-feet, respectively. Irrigation water provided by these facilities would be distributed to 52,570 acres of full irrigation service lands through a complex of six principal canals, nine pumping plants, and laterals as required to afford delivery to individual operators. Drains would be constructed to meet demonstrated needs for disposition of excess surface water and for subsurface drainage. Outdoor recreation and fish and wildlife facilities would be provided as a part of the proposed development.

The February 1971 reevaluation statement modifies the plan of development and operation for the division proposed in H. Doc. 491. Under the plan now recommended, no natural flows of the North Loup and Calamus Rivers would be diverted for irrigation purposes during the critical water supply months of July and August and some years in September. This would permit maintaining downstream flows in the Loup and Platte Rivers for recharge of ground water for existing municipal and irrigation uses and minimizing the adverse impact of project water withdrawals on water quality and the existing ecology. This operational change would require adding the Kent Diversion Dam and the Kent Canal to obtain water from the North Loup River and enlarging Calamus and Davis Creek Reservoirs to increase their conservation storage capacity by 30,000 acre-feet. This enlargement of the reservoir storage capacity would require a slightly higher dam in both cases.

The plan of development presented in H. Doc. 491 was reevaluated to reflect more current price levels and modification in the recommended plan of development. The total estimated project cost for benefit analysis, based on October 1970 price levels, is \$76,466,000. The total includes the estimated construction cost of \$73,400,000, plus an assignment of \$1,207,000 of the Pick-Sloan Missouri Basin Program power investment for irrigation pumping and \$3,459,000 for interest during construction. \$1,600,000 of preauthorization costs have been deducted. The operation, maintenance, and replacement costs are estimated at \$324,000 annually. The estimated annual costs for economic analyses, which include the annual equivalent of the net project investment (total investment less preauthorization investigation costs) and the annual operation, maintenance, and replacement costs, have been computed to be \$2,915,000.

The annual benefits attributable to the project functions total \$3,871,000. The total benefits to be derived from irrigation of the division lands have been evaluated to be \$3,804,800 annually and are comprised of \$3,127,000 direct and \$677,800 indirect and public benefits. Recreation benefits of \$37,500 annually would be derived from water-oriented outdoor recreation opportunities created by construction and operation of Calamus and Davis Creek Reservoirs. Similarly, fish and wildlife benefits of \$28,700 annually from hunting and fishing would result from the construction and operation of the division.

As presented herein, the economic justification for the division as demonstrated by the comparative ratio of the total evaluated benefits (\$3,871,000) to the estimated annual costs (\$2,915,000) on the basis of a 100-year period of analysis at $3\frac{1}{4}$ percent interest is 1.33 to 1. Using only direct benefits (\$3,193,200), the ratio would be 1.09 to 1.

The total estimated project cost of \$73,007,000 has been allocated among the purposes as follows: \$71,895,000 to irrigation, \$750,000 to fish and wildlife, and \$362,000 to recreation. Similarly, the tentative allocation of the \$324,000 estimated annual operation, maintenance, and replacement costs is \$298,000 to irrigation, \$25,000 to recreation and \$1,000 to fish and wildlife.

Project costs allocated to irrigation would be reimbursable without interest within 50 years following a 10-year development period after completion of the division's irrigation facilities. The irrigation beneficiaries, principally the water

users, would repay an estimated \$13,850,000 or 19 percent of the irrigation cost, plus the annual operation, maintenance, and replacement expenses allocated to irrigation (\$298,000). Either the Twin Loups Reclamation District or the Twin Loups Irrigation District would contract for the repayment of all reimbursable irrigation costs by the beneficiaries. The \$58,045,000 allocated to the irrigation function would be repaid from Pick-Sloan Missouri Basin Program power revenues available for that purpose during the 50-year repayment period.

The Twin Loups Reclamation District has indicated by letter dated July 28, 1969, its intent to administer the land and water areas of the division for recreation and fish and wildlife enhancement and to repay with interest one-half of the separable costs of the division allocated to those two functions, totaling \$175,000, plus \$3,000 interest during construction and all annual operation, maintenance, and replacement costs of \$25,000 incurred therefor, as provided by the Federal Water Project Recreation Act.

The remaining \$937,000 of project costs consisting of one-half the separable costs (\$175,000) and all the joint costs (\$762,000) plus \$1,000 of annual operation, maintenance, and replacement costs are allocated to recreation and fish and wildlife functions and would be nonreimbursable Federal costs as provided by the law. Reimbursement by irrigation fish and wildlife, and recreation contractors and from Missouri River Basin power revenues would total about \$72,073,000 or nearly 94 percent of the total project and assigned costs.

Local support for the North Loup division is strong, as evidenced by the early organization of the Twin Loups Reclamation and Irrigation Districts, which have indicated their willingness to consummate the required repayment contracts. The Nebraska Soil and Water Conservation Commission supports the authorization of the plan of development now recommended for the North Loup division.

We have examined the plan of development for compliance with Executive Orders No. 11296 and No. 11507, which prescribe regulations concerning the relationship of Federal water resources projects to flood hazards and water and air quality standards. No significant problems are foreseen in these respects except some increase in salinity may occur downstream in the North Loup and Loup Rivers due to return flows from irrigation. The resultant salinity levels would not violate the Nebraska water quality standards which were approved by this Department.

The impact of the division on the environment has been considered pursuant to the National Environmental Policy Act of 1969. The North Loup division will have a beneficial environmental impact on the area and the State. Conversion of the present dryland agriculture to irrigated agriculture would provide the impetus for desirable social and economic opportunities. In addition, the enhancement of water and related land resources for fish and wildlife and outdoor recreation will improve the quality of the human environment.

No significantly unique natural resource areas or conditions would be adversely affected by the proposal. A unique wildlife feature of the area, a cottonwood grove with a substantial heron rookery, would be protected and preserved.

Certain environmental impacts may be adverse. Although substantial flows will remain, reduction of flows in the Calamus and North Loup and Loup Rivers may cause some minor ecological change. The present plan for the division includes measures to reduce the impact of diversions from the rivers for project use, especially during summer months. River withdrawals will be restricted to the months during which there are higher flows. Adequate summer flows will thereby be maintained for the purpose of protecting water quality. As previously mentioned, the proposed development would result in some increase in the dissolved solids in the North Loup, Loup, and Platte Rivers during the summer months from irrigation return flows. We are reviewing the possibility of using storage space in the project, which would be made available by withdrawals for irrigation use, to store excess flows in July and August for use in September (the month in which the lowest streamflows generally occur). This would benefit water quality from the standpoint of dissolved oxygen and total dissolved solids. The conversion of 13 miles of the Calamus River from a river ecology to a reservoir ecology would result in net benefits for recreation and

fish and wildlife enhancement. A more detailed statement of effects on the environment, prepared pursuant to section 102(2)(C) of the National Environmental Policy Act of 1969 is enclosed.

There is no alternative use of the water and related land resources which would achieve equivalent economic, social, and environmental benefits at comparable costs.

The human and natural resources of the area are utilized predominately in an agricultural economy. This relationship is not expected to change materially in the future, either with or without development of the North Loup division. Therefore, no major requirement is foreseen for the commitment of resources to uses other than those proposed, although such commitment would not be irreversible or irretrievable if higher value uses should arise at some future time. Thus, local short-term use of these resources is consistent with the need to maintain and enhance long-term productivity.

The enclosed draft bill differs in several respect from S. 352 and S. 2350. Section 1 deletes as unnecessary the provision of both bills that the Secretary would be governed by the Federal reclamation laws since such laws would apply to the division by their own terms. Other minor drafting changes have also been made. The draft deletes section 4 of both bills which relates to surplus agricultural products. The provisions of section 5 of the draft bill limiting diversions from the Calamus and North Loup Rivers are identical to section 6 of S. 2350 which is not contained in S. 352. Section 6 of the draft bill and section 7 of S. 2350, consistent with current practice, set a limitation on the amount authorized to be appropriated for the division which takes into account the fluctuations in construction costs and authorizes appropriations for nonreimbursable operation and maintenance costs.

Enclosed is a statement concerning the estimated employment and expenditures required by 5 U.S.C. 2953 (1966), formerly Public Law 84-801 (5 U.S.C. 642).

The Office of Management and Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely yours,

JAMES R. SMITH,
Assistant Secretary of the Interior.

NORTH LOUP DIVISION, MRBP—ESTIMATE ADDITIONAL MAN-YEARS OF CIVILIAN EMPLOYMENT AND EXPENDITURES FOR THE FIRST 5 FISCAL YEARS

[As required by 5 U.S.C. 2953 (1966), formerly Public Law 801, 84th Cong.]

	First year	Second year	Third year	Fourth year	Fifth year
Estimated additional man-years of civilian employment:					
Executive direction.....					
Additional services and support:					
Clerical.....	2	3	1	6	8
Personnel.....	1	1		1	1
Total administrative services and support.....	3	4	1	7	9
Substantive (program):					
Engineers.....	8	12	1	13	16
Engineering aids.....	5	9		14	19
Geologists.....	2	2		1	1
Agriculturists.....	1	1	1	1	1
Economists.....	1	1	1		
Land appraisers and negotiators.....				2	4
Total substantive.....	17	25	3	31	41
Total estimated additional man-years of civilian employment.....	20	29	4	38	50
Estimated additional expenditures:					
Personal services.....	\$220,000	\$300,000	\$40,000	\$430,000	\$578,000
All other.....	60,000	70,000	10,000	220,000	2,322,000
Total estimated additional expenditures.....	280,000	370,000	50,000	650,000	2,900,000

SUMMARY—FINAL ENVIRONMENTAL STATEMENT, NORTH LOUP DIVISION,
PICK-SLOAN MISSOURI BASIN PROGRAM, NEBRASKA, PREPARED BY
DEPARTMENT OF THE INTERIOR, BUREAU OF RECLAMATION,
REGION 7

() DRAFT (X) FINAL

1. Administrative Action () Legislative Action (X)
2. The North Loup Division consists of storage and diversion works on the Calamus and North Loup Rivers and on a tributary of Davis Creek in central Nebraska.
3. Summary of environmental impact:
 - (a) Increased economic activity totaling \$36 million annually within Nebraska.
 - (b) Enhancement of the economic and social environment of this rural area would discourage the outmigration of people to large urban centers.
 - (c) Approximately 6,300 acres of water surface area would provide fishing and outdoor recreation opportunities.
 - (d) The reservoir would inundate 13 miles of stream fishery and approximately 6,300 acres of land including the associated terrestrial wildlife habitat.
 - (e) Downstream flows would be reduced.
4. List of alternatives considered:
 - (a) Nondevelopment
5. List of agencies from which comments have been requested:

Department of the Interior

 - (a) Bureau of Sport Fisheries and Wildlife
 - (b) Bureau of Outdoor Recreation
6. Draft statement was sent to the Council on Environmental Quality July 12, 1971.

ENVIRONMENTAL STATEMENT ON PROPOSED NORTH LOUP DIVISION, PICK-SLOAN
MISSOURI BASIN PROGRAM, NEBRASKA, PURSUANT TO SECTION 102(2) (C) OF THE
NATIONAL ENVIRONMENTAL POLICY ACT OF 1969

Summary of effects on human environment

The proposed North Loup Division was planned cooperatively by the Bureau of Reclamation with other Federal and State agencies and local organizations having an interest in the ecological systems and water and related land resources. The development would enhance the quality of the human environment by providing the impetus for important social and economic benefits through irrigation service to some 52,600 acres of land, facilities to serve an expected 50,000 visitor-days of public outdoor recreation use annually, and management of fish and wildlife resources to provide an additional estimated 19,070 days of public hunter and fisherman use annually. It is estimated that the proposed irrigation development would create annually \$36 million in new business activity in Nebraska. Significant employment opportunities would accrue from the proposed development to local labor resources which have substantial economic underemployment.

There would be some adverse effects on the environment from the proposed development. Natural flows of the North Loup and Calamus Rivers would not be diverted for Division needs during the critical summer months to minimize the adverse environmental impact on the North Loup and Loup Rivers principally. There would be some increase in the concentration of dissolved solids of the flows of the North Loup, Loup, and Platte Rivers during summer months from irrigation return flows. Land use changes associated with converting 52,600 acres of land, now essentially all cropland, to irrigated agricultural production may reduce wildlife habitat.

Nature of the activity

The North Loup Division would be a multiple-purpose water and related land resources development situated in the Loup River basin in central Nebraska serving the functions of irrigation, recreation, and fish and wildlife. The principal features would include Calamus Dam and Reservoir to be constructed on the Calamus River to store and divert water. Kent Diversion

Works would be constructed on the North Loup River to divert water into the system for direct use or for storage in Davis Creek Reservoir. Davis Creek Dam and Reservoir, to be located on a tributary of Davis Creek, would serve as a storage and reregulating feature. Regulated irrigation releases would be made to five principal canals totaling 62 miles in length, one major and nine small pumping plants, and 212 miles of lateral systems to supply irrigation water to 52,600 acres of land. Recreation enhancement facilities are included but no features for fish and wildlife enhancement are recommended. Trees and shrubs would be planted on 150 acres of acquired land adjacent to the reservoirs to replace wildlife habitat lost by inundation and to maintain hunting opportunities and aesthetic values.

The North Loup Division operating criteria provide for passing all natural flows of the North Loup and Calamus Rivers during July and August every year and during September when storage water is available to meet Division needs. These criteria reduce the impact of the Division on the environment by diverting the necessary water during the least critical periods.

The feasibility report of the Secretary of the Interior on the North Loup Division (H. Doc. 87-491) recommending authorization for construction was transmitted to the Congress in July 1962. Although this was prior to enactment of the National Environmental Policy Act of 1969, the policies, goals, and directives of the act have been met through provisions of law and Presidential instructions for coordination of planning studies and reports on Federal water and related land resources projects. This systematic, interdisciplinary approach was also used in the reanalysis of the Division presented in the Reevaluation Statement, February 1971.

Impact on the environment

The multiple-purpose North Loup Division would improve the social and economic environment of the region through the development, management, and use of affected water and related land resources.

Stabilized and increased agricultural production from the irrigation of 52,600 acres of cropland would provide the impetus for important social and economic opportunities. A study developed by the University of Nebraska indicates \$6.68 of economic activity occurs within the State of Nebraska for each dollar of increased value attributable to irrigated crop production. Applying the results of this study to the North Loup Division shows that the irrigation development would cause an annual impact of \$36 million to Nebraska business. This important economic impact would accrue both on the farm and to the business sector across Nebraska.

Economic underemployment of the civilian labor force averaged 46 percent in 1960 for the six-county area encompassing the North Loup Division. The chronic problem of underemployment within the area is reflected by a steady population decline from 36,300 in 1940 to 24,500 in 1970. The construction and operation and maintenance of the North Loup Division would provide local employment opportunities for unskilled and semiskilled labor. In addition, there would be a substantial increase in demand for hired farm labor. By enhancing the quality of the economic and social environment of a rural area, development of North Loup Division would help achieve the national objectives of full employment and population dispersal.

Calamus and Davis Creek Reservoirs would have total storage capacities of 128,200 acre-feet and 32,500 acre-feet and up to 5,150 acres and 1,145 acres of water surface, respectively. Water-oriented outdoor recreation opportunities would be provided through the installation of facilities recommended by the Bureau of Outdoor Recreation at the reservoirs. These facilities would include interior roads, parking and picnic areas, sanitary facilities, and boat ramps. It is estimated that there will be 50,000 recreation visitations annually.

Calamus Reservoir would provide reservoir fishery in lieu of about 13 miles of stream fishery. Davis Creek Reservoir would create a minor fishery in Davis Creek, an intermittent stream which now produces no fishing. The proposed development would increase fisherman use by an estimated 18,900 man-days annually. In addition to the water surface areas, 3,750 acres of acquired lands at Calamus Reservoir and 2,510 acres at Davis Creek Reservoir would provide opportunities for wildlife habitat development and management and public hunting. Both reservoirs will provide habitat, mainly resting for migratory waterfowl, and would increase waterfowl hunting an estimated 340 man-

days per year. In the interest of maintaining a variety of hunting opportunities and aesthetic wildlife values, habitat losses would be replaced by planting 150 acres of suitable trees and shrubs on the reservoir lands as recommended by the Bureau of Sport Fisheries and Wildlife. The one unique wildlife feature of this area, a cottonwood grove with a substantial heron rookery, would be protected and preserved.

Adverse environmental effects

Construction and operation of the North Loup Division would have certain adverse environmental impacts.

The plan of development recommended for the North Loup Division in the Reevaluation Statement, February 1971, has been modified from that presented in the feasibility report of the Secretary of the Interior which was transmitted to the Congress in 1962 to provide that the natural flows of the North Loup and Calamus Rivers will not be diverted for Division purposes during July and August and during September when storage water is available to meet Division needs. Eliminating or reducing the withdrawals of the natural flows during this critical period will reduce the adverse impact downstream on the flows of the Calamus, North Loup, and Loup Rivers, and the ecosystems associated therewith, and will contribute significantly to maintaining the quality of the present environment. The cost of the additional facilities required for the modified plan adversely affects the economic justification of the proposed development.

The proposed development would result in some increase in the dissolved solids in the North Loup, Loup, and Platte Rivers during summer months from irrigation return flows. The resultant water quality would be within the criteria specified in the Water Quality Standards adopted by the State of Nebraska and approved by the Secretary of the Interior. As suggested by the Water Quality Office, Environmental Protection Agency (formerly Federal Water Quality Administration), consideration will be given during advance planning to further modification of the operations plan to make additional water available in the month of September in the interest of water quality control.

At conservation capacity, the two reservoirs will inundate 13 miles of the Calamus River and 6,295 acres of land including the associated terrestrial wildlife habitat. The 150 acres of valuable wooded habitat would be replaced as a project mitigation measure. The effects of Calamus and Davis Creek Reservoirs will be a loss of 750 man-days of stream fishing, 170 man-days of deer and upland-game hunting and a reduction in fur-animal harvest of 35 pelts annually. Land use changes that would result from the irrigation of 52,600 acres of cropland may have an adverse effect on wildlife habitat and populations although this is not indicated or established in the Reevaluation Report of the Bureau of Sport Fisheries and Wildlife on the North Loup Division.

No significantly unique resource or natural aesthetic conditions would be adversely affected by the proposal as the existing natural conditions of the Division are prevalent throughout the region.

A potential for adverse effects such as increased mosquito population, increased sediment production to streams, increased stream pollution from animal feedlots, and pesticide pollution exists in irrigated areas. Such adverse effects can be prevented by proper development and management practices.

Provisions have been included in the estimate of construction costs for seeding and mulching where necessary to assure revegetation of all areas bared by project construction.

Alternatives to proposed action

Any alternative development would either forgo the economic and social benefits to be derived from the proposal or would transpose these benefits to another area. There are no alternative means of utilizing the land and water resources which would provide equivalent economic, social, and environmental benefits at comparable costs. The practical alternatives are limited to variations in the design and location of the physical works required. Leaving the water and the related land resources in their present state is not a viable alternative as this would forgo extensive benefits and constitute the continuation of an inefficient use of natural and human resources.

Numerous alternatives were studied initially in the process of formulating the plan of development recommended for the North Loup Division. These al-

ternatives included various reservoir sites, other facility locations, methods of irrigation service and lands to be irrigated. Selection of the plan of development recommended in the Secretary of the Interior's feasibility report which was transmitted to the Congress in July 1962 was based largely on engineering and economic considerations and represents the most likely alternative to the plan presented in the February 1971 Reevaluation Statement. The feasibility report plan, which did not limit withdrawals of water for irrigation during the critical summer months, would reduce the estimated construction costs of the Division by \$5.6 million.

Relationship of short-term uses versus long-term needs

The human and natural resources of the area are utilized predominantly in an agricultural economy. The fishery and wildlife resources are influenced by this association. This relationship is not expected to change materially in the future, either with or without the proposed development. Therefore, common relationship exists between local short-term use of these resources and the need to maintain and enhance the long-term productivity of the environment to satisfy human needs.

Irreversible commitment of resources

The proposed North Loup Division would utilize an average of 64,600 acre-feet of the flow of the Calamus River and 72,000 acre-feet of the flow of the North Loup River annually to irrigate 52,600 acres of land for the useful life of the development, which is considered to be 100 years for the purpose of feasibility evaluation. Such commitment of these water and land resources would not be irreversible or irretrievable should uses having a higher value to fulfill human needs arise at some future time.

A total of 6,295 acres of land and 13 miles of the Calamus River and the ecosystems associated therewith would be inundated by the proposed Calamus and Davis Creek Reservoirs.

The commitment of labor and part of the materials required to construct the works would be irreversible and irretrievable.

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET,
Washington, D.C. January 27, 1972.

HON. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate,
3106 New Senate Office Building,
Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your requests of March 4 and August 9, 1971 for the views of the Office of Management and Budget on S. 352 and S. 2350, two bills "To authorize the Secretary of the Interior to construct, operate and maintain the North Loup division, Missouri River Basin project, Nebraska, and for other purposes."

In its report, the Department of the Interior recommends enactment of a proposed bill in lieu of either S. 352 or S. 2350. The Office of Management and Budget concurs in the views of the Department of the Interior and accordingly would have no objection to the enactment of the substitute bill in lieu of either S. 352 or S. 2350.

Sincerely,

WILFRED H. ROMMEL,
Assistant Director for Legislative Reference.

Senator BURDICK. Due to the fact that some of the witnesses did not notify us in time, there is some disorder regarding the witness list, but we will proceed as best we can.

Do I understand that Senator Hruska and Senator Curtis are not here at the present time? If they are not here, they will be heard when they come.

I would like to hear from Mr. Glenn W. Krenscher, who represents the Governor of Nebraska.

**STATEMENT OF GLENN W. KRENSCHER, REPRESENTING THE
HONORABLE J. JAMES EXON, GOVERNOR OF THE STATE OF
NEBRASKA**

Mr. KRENSCHER. I am Glenn Krenscher, representing Governor J. James Exon, this morning.

In presenting the Governor's testimony with regard to the North Loup Division of the Missouri River Basin project, I have offered a copy of the Governor's testimony, so I will just make some brief remarks regarding his testimony.

Since most of the activity of this development preceded the current administration, I think it is well to mention and make it a matter of record, that the current administration supports and encourages the same development for this project as you previously heard in previous testimony.

Mr. Dan Jones and Mr. Dale Williamson and others from the Department, I think Mr. Carroll Hayman here this morning, will be presenting testimony on the technical part, so I will forego any discussion on the technical part.

I think the important thing to consider is that, as all of you know, Nebraska is presently predominantly a rural State, and the overwhelming characteristic of that State is in terms of agricultural economy. Our future depends on food production and associated industries.

It is the development of projects like this which can be the most meaningful programs to stabilize our economy and furnish future protection for food and fibre, protection at a time when the appreciation of agricultural land in many populous States becomes desired for our use.

I would like to call to the attention of the committee that while you may have some that wonder why a person is interested in development, while making reference to surpluses, these are very vague food supplies. Just a year ago when blight threatened our corn crop, we were in danger of food shortages. If we would have stopped developing our resources in the 1940's America would be a very hungry nation. I think this is something we need to keep closely in context, the whole economy of the project area has been depressed for years, and we have the opportunity to make use of this project.

Today, with the cost of agriculture, drought is something you cannot afford, and it is something we need protection from.

The great need for this project has caused people to put aside their differences. I think this is one of the most apparent things I have seen about this project. The project now proposed represents equitable, and I believe, reasonable separations of differences, as the basis of support I previously described.

This upstream-downstream agreement is very significant. The willingness to leave the status quos during all of July and August is a big step in preserving the environment and the social and economical and human pluses of this protection, outweighs any adverse effects.

We, of Nebraska are convinced of the benefits that will come from this project. We know that the past projects have benefits for people far beyond the numbers of the benefit cost ratio.

Again, it should be pointed out that the project has met economic tests and on top of that it has met a very, very important people test. The project has been endorsed as a principal part in Nebraska's statewide plan for developing our water resources, and I would like to call attention to the committee that finally the legislature has without a single objection endorsed this project and joins the Governor in urging early authorization and funding of this division.

The reservoirs associated with this project will be a positive addition to the fate of the State of Nebraska.

Mr. Chairman, and members of the committee, this project is urgently needed and Governor Exon wholeheartedly supports its authorization.

Thank you. Are there any questions?

Senator BURDICK. Thank you very much. I have a question or two.

You say that the interests of Nebraska are united on this plant now?

Mr. KRENSCHER. Yes, I would say they are.

Senator BURDICK. Do you have any dissidents at all?

Mr. KRENSCHER. I would expect you might have a few people that would question some of the environmental effects, but I would like to point out this is a project I think can be improved environmentally. If we would have stopped, as I mentioned previously, stopped development of our State and had not continued it, we would never have been able to keep pace with the great development that has made us such a leader.

I think we can develop projects as this and meet our environmental requirements. As far as the question of some people offering testimony, where they suggest a wide membership involved by a few spokesmen, if we were to combine the national members of the agricultural groups, you would be into the millions if you were to take that group as to what the best reason is for resource development.

Senator BURDICK. I notice in your statement another point that deserves consideration; namely, that one-third of the years in Nebraska are years of severe drought.

Mr. KRENSCHER. That's right.

Senator BURDICK. During what period of time has that record been kept?

Mr. KRENSCHER. This is over many years. What you are confronted with in Nebraska, in addition to severe droughts, is that practically every year we will hit this period of shortage of water and it is most important to have projects that can carry us through this period so that we are able to keep pace today with what the requirements are in production of food and fibre.

Senator BURDICK. In other words, if the water supplement was available at the particular time needed it would be important in carrying the crop through?

Mr. KRENSCHER. Yes.

Senator BURDICK. We have authorized a project similar to this in North Dakota and South Dakota, so we know what it means.

Mr. KRENSCHER. We just had a symposium at the University of Nebraska, where we brought in people from all over the State to discuss this subject. We can see that through the development of our

resource projects, it would be possible to almost double the economic resources of our State.

Senator BURDICK. Thank you very much. Your full statement will be made a part of the record.

(The prepared statement of Governor Exon follows:)

STATEMENT OF HON. J. J. EXON, GOVERNOR OF THE STATE OF NEBRASKA

Mr. Chairman and members of the committee, one of the most pleasant opportunities I have as governor of Nebraska is to give support to worthwhile projects and programs which are forward looking, well thought out and strongly supported within the State. The O'Neill Unit project is in that category and the long time that has been involved in coming to this point only increases my pleasure in assisting to build your record by setting forth my position as clearly as I can.

Just as you do, I daily face the problem of deciding which, among a variety of good programs and projects, are of such value that they deserve immediate action and a priority in the use of what is always too small a purse.

Your committee will be receiving testimony of several Nebraska State agencies. Mr. Dan Jones, Director of the Conservation and Survey Division of the University of Nebraska and Mr. Dayle Williamson, Executive Secretary of the Soil and Water Conservation Commission are here to not only present their statements but to answer questions. Therefore, I don't propose to discuss the technical aspects of this project at all. Instead, I would like to make a few general points regarding the importance of this project to all of Nebraska and our state position toward it.

The State of Nebraska is a State composed of mostly agricultural lands. We have our urban areas but these are primarily in the eastern section of our state. After leaving this eastern sector of Nebraska, the economy basically relies on the extensive farm lands of central Nebraska and the cattle production in the vast sandhill areas of western Nebraska.

In looking to Nebraska's future, we must base our future on a continuing advancement of the agricultural economy.

When we look at the overall use of the agricultural lands in Nebraska, we find our future will depend very definitely in increasing our support on a state's agricultural production that can support the citizens and communities of our rural state. It would be impossible for Nebraska to use these lands for purposes other than agricultural production.

Because of our great dependence on agriculture, land and water development is of more than passing importance in Nebraska. Such development is absolutely essential if we are to develop and maintain the vigorous economy required to hold our youth in the state, let alone on our many family farms.

Another point that deserves your consideration is the fact that something like one-third of the years in Nebraska are years of severe drought. Irrigation is desperately needed to give the farmer some stability of production he can plan for and count on.

The O'Neill Unit project, like most others which reach this committee, has had a long history in which it has been necessary to meet and overcome a long series of delays. I admire the persistence and patience of the sponsors. They have tenaciously continued in spite of every setback until today to my knowledge, every obstacle has been overcome.

From the time it was conceived, the project has never been cause for the upstream-downstream division of opinion which often arises. From the indications of support I have received, I am convinced that an unusual degree of unanimity exists throughout the basin in favor of the project.

This project has received some publicity, locally at least, with regard to possible bad environmental effects which might result from its construction. Because the environment is such a major national concern at the present time, I want to deal specifically with this point.

First of all, I think we must realize man lives in more than just a physical environment. He also must live in an economic environment and a social environment. Taken together, these plus perhaps some others determine the quality of our lives. I believe it is this quality of life that we seek, not merely preservation in every case of the physical environment's status quo.

There is no doubt that construction and operation of the O'Neill project will cause a decrease in the flows of the Niobrara River. One can't argue that the reservoir will put some nineteen of the four hundred miles of the Niobrara Valley under water. However, in addition to the old recognized values of irrigation and flood control, it will also create a tree lined reservoir which will be a place of real beauty. It will give us an opportunity to develop a recreational fishery that presently does not exist in the Niobrara River and it will be the base of an increasingly important tourist industry.

The State, through the several agencies and boards involved in resource development and ownership of our public lands, has spent considerable time in balancing the environmental pluses and minuses of the project. We feel that the pluses far outweigh the negative environmental effects and that the project, from an environmental standpoint, will be a major and definite asset to Nebraska. Certainly then, when viewing this project in the full perspective of its contribution to the overall quality of life in the Niobrara Basin and in Nebraska, there can be no doubt as to its desirability.

The need for this project and the substantial public support in Nebraska for its authorization and construction has resulted in numerous endorsements of the project within the state. The O'Neill project is included as a principal feature of Nebraska's State Water Plan which has been endorsed by the legislature without a single dissent, and the legislature has by resolution specifically requested congress to provide early authorization and funding of this project.

Mr. Chairman and members of the committee, I want the records to show that as Governor of the State of Nebraska and on behalf of the people of Nebraska, I fully support the authorization of the O'Neill project and urge you to favorably act on it at the earliest time possible.

Senator BURDICK. I see Senator Hruska has arrived in the hearing room. You are next, sir.

Senator Hruska is one of the sponsors of this legislation and we are pleased to have him with us.

STATEMENT OF HON. ROMAN L. HRUSKA, A U.S. SENATOR FROM THE STATE OF NEBRASKA

Senator HRUSKA. Mr. Chairman, I would like to inform the Chair that my colleague is on his way to Washington. He should be here at 11:15 or so.

My oral statement will be short, Mr. Chairman. I have prepared a longer statement which I would like to insert in the record.

Senator BURDICK. Without objection it will be received.

Senator HRUSKA. In this way we will give the committee the benefit of the convictions and thinking we have arrived at about the merit of this plan. By doing that the witnesses who have come a long way will have more time.

Nebraska is familiar with the pattern and with the basis for projects like this because it has shared in their benefits. We know how things are set up, we know how they are contracted for, what obligations are placed upon those for whom—in whose area the project is built. We also have witnessed the fruits that have come from similar projects. We believe that the technology is here, the necessary justification for a sound project are present in this instance and we urge the committee to study it carefully and to give us the benefit of any thinking they might have on it, and to authorize the project so we may go forward with it.

Senator BURDICK. Are you familiar with the cost benefit ratios and the technical aspects of the project?

Senator HRUSKA. The benefit cost ratio?

Senator BURDICK. I was coming to how the new proposed interest rate might affect this project.

Senator HRUSKA. We are hopeful this will not be in the category that will fall by the wayside. We are hopeful that the new table of rates which is under consideration will take into account many things which are beyond the moneylenders consideration. But that remains to be figured out and the policy of the Congress has always been a kindly one for projects of this kind, and we hope it will continue.

Senator BURDICK. I have a report here, a memorandum, that indicates that the economic analysis of this project has been made using a discount of $3\frac{1}{4}$ percent, because it was transmitted to Congress prior to the formula adopted in 1968. The current discount rate will be $5\frac{3}{8}$ percent, so that will have a bearing on the benefit—

Senator HRUSKA. It will indeed. There are social values, other values that all of us know. When we find the huge sums that are pumped into many metropolitan areas and we have a national policy to buildup and make more of those areas which are nonurban, we have to get into considerations other than, like I said a little while ago, the money lenders viewpoint.

It will depend upon the general policies which the Congress will want to adopt in that regard.

Senator BURDICK. And I, like you, am very concerned with that policy.

Senator HRUSKA. Yes.

Senator BURDICK. Thank you very much.

Senator HRUSKA. Thank you, sir.

(The complete statement of Senator Hruska follows:)

STATEMENT OF HON. ROMAN L. HRUSKA, A U.S. SENATOR FROM THE STATE OF NEBRASKA

Mr. Chairman, I am pleased to have this opportunity to present my views on the North Loup Irrigation Project to your subcommittee. As you can well imagine, I have very pronounced views on the desirability and necessity of the project since I have worked for it, supported it and spoken out in behalf of it since it was first proposed many years ago.

Those of us who are concerned with the welfare and the future of central Nebraska are very hopeful this year that the project will receive your subcommittee's favorable consideration.

Senator Curtis and I introduced legislation in 1963 and 1965 to authorize the project. Although reports were requested from the Department of Interior and the Bureau of the Budget, they were not received, and action by the Interior Committee was thus precluded.

The bill you are now studying was introduced by Senator Curtis and me last July, and I am happy to report that it has received a favorable recommendation from the Department of Interior and the Office of Management and Budget.

The North Loup Project would provide irrigation for about 53,000 acres of land in an area where rainfall is marginal and the water table has been steadily declining. A recent report from the Conservation and Survey Division of the University of Nebraska indicates that a downward trend of water levels has been established in the past three to seven years. Wells in the project area show declines of water levels from five to seven feet.

Since irrigation is essential to the economy of the area, the reduction of grouped water is of vital significance. Without the supplemental water which can be provided only by the North Loup unit, the economy of the entire area will be adversely effected. The additional water will provide impetus to rural

development and stabilization by increasing both crop production and diversification.

Further enhancing the value of this worthwhile project are the cost and environmental benefits it will provide. Estimated annual benefits will include \$3,955,000 in irrigation benefits, \$28,000 in fish and wildlife and \$37,000 in recreation.

This project holds great promise for residents of the area, Mr. Chairman. Its present and future benefits are virtually incalculable. The project is greatly needed and your subcommittee's approval is earnestly sought.

Senator BURDICK. Now, we will hear Mr. Ellis Armstrong, Commissioner of the Bureau of Reclamation.

STATEMENT OF ELLIS L. ARMSTRONG, COMMISSIONER, BUREAU OF RECLAMATION, ACCOMPANIED BY DANIEL V. MCCARTHY, CHIEF OF PLANNING DIVISION, AND JOHN F. MAYNE, AREA ENGINEER, GRAND ISLAND, NEBR.

Mr. ARMSTRONG. I have with me Mr. Daniel V. McCarthy, Chief of our Planning Division in Washington, and Mr. John F. Mayne, our area engineer in Grand Island, Nebr.

Mr. Chairman and members of the Subcommittee on Water and Power Resources.

We are pleased to appear today to testify on the legislation to authorize the construction of the proposed North Loup Division of the Pick-Sloan Missouri Basin program, Nebraska. The Secretary's feasibility report on this Division was submitted to the Congress on July 25, 1962, and was printed as House document No. 491, 87th Congress.

The views of the Department of the Interior on the bills S. 2350 and S. 352 were presented in our letter of February 2, 1972, to the chairman of the Committee on Interior and Insular Affairs. We note the following pen and ink changes that have been made to correct typographical errors in that letter: on page 2, last paragraph, 32,000 changed to 30,000; and on page 3, first paragraph, change \$76,641,000 to \$76,466,000, \$3,634,000 to \$3,459,000, and \$2,921,000 to \$2,915,000. Enactment of a substitute measure to provide conformity to other recently enacted measures authorizing units of the Pick-Sloan Missouri basin program is recommended in lieu of the several amendments that would be required to conform S. 2350 and S. 352.

Portions of the North Loup Division were originally authorized as a part of the Missouri River Basin project by the Flood Control Acts of 1944 and 1946. However, the provisions of Public Law 88-442 require reauthorization by the Congress of any units of the Missouri River Basin project on which construction was not underway as of August 14, 1964.

The proposed Division, a multiple-purpose water and related land resources development, would provide for irrigation, enhancement of outdoor recreation opportunities, and conservation and development of fish and wildlife resources.

The basic plan of development as presented in House document No. 491, has been supplemented and modified by a reevaluation statement dated February 1971 which was a part of the Department's report on S. 2350 and S. 352.

The North Loup Division involves an area where the predominantly agricultural economy has suffered extensively from inadequate natural moisture conditions. This has tended to limit dependable farm production and income and has adversely affected the interdependent urban economy. Lack of both job opportunities in the towns and stable employment on the farms has resulted in substantial out-migration from the area, particularly by the younger people. In fact, they have lost about one-third of the population since 1940.

The display map shows the general location of the plan of the North Loup Division in central Nebraska. Principal features of the plan as presented in House document 491 include: Calamus and Davis Creek dams and reservoirs, Geranium pumping plant, 375 miles of canals and laterals, associated works for irrigation of 52,570 acres of irrigable land, and facilities for recreation and incidental fish and wildlife uses.

Calamus Dam would be an earthfill structure about 85 feet above streambed with a crest length of about 6,400 feet. Total capacity in Calamus Reservoir at the top of the conservation pool would be 128,200 acre-feet. Davis Creek Dam would also be an earthfill structure rising about 100 feet above streambed and 2,900 feet long. Total capacity in Davis Creek Reservoir at the top of the conservation pool would be 32,500 acre-feet.

Rights-of-way adequate for construction, operation and maintenance of Calamus and Davis Creek dams and reservoirs, the principal regulation and storage works, would require the acquisition of approximately 13,450 acres of land.

Changes in the plan of development from that presented in the Secretary's 1962 feasibility report resulted from further consideration of the effect of the proposal on the flows of the Calamus and Loup Rivers, particularly during the summer months. Downstream interests, including a power district, municipalities, irrigators, and others expressed concern over the cumulative effects of upstream irrigation development on the summer flows of the Loup River.

By increasing the conservation capacity in the storage and regulatory reservoirs, the recommended plan presented in the February 1971 reevaluation statement would allow the project to fulfill its purposes without using water from the Calamus or North Loup Rivers during the critical water months of July and August of every year as well as during most Septembers. Under the proposed plan, the natural flows would be by passed in those months to alleviate downstream municipalities' concerns for river flows to recharge their well fields near the river. Such flows would also maintain downstream environmental conditions.

As a result of these changes, the proposal now has the full support of all concerned organizations and local and State agencies. In addition, national objectives would be served by maintaining and enhancing the quality of the environment.

Water requirements for the Division would average 137,400 acre-feet annually and would consist of direct flow and storage diversions from both the North Loup and Calamus Rivers.

The irrigation service area of 52,570 acres of irrigable land is located in the upland and valley areas along the North Loup and

Loup Rivers. Project pumps would be required to serve about 10,000 acres of the higher lying lands, and the balance would be supplied by gravity. Pick-Sloan Missouri Basin program power would be utilized for pumping energy. Ground-water pumping for irrigation in the proposed service area has been increasing, particularly during dry years. Nebraska records of January 1, 1972, list 264 wells in Valley County. Ground-water levels have dropped 12 feet in some places since 1967 with an average decline for the period 1967-71 of 5.6 feet in Valley County.

The project's assured water supply would yield total benefits from irrigation of \$3,804,800 annually. There are many additional beneficial impacts that are induced by or stem from the increased production of irrigated land. A study which was made by the University of Nebraska and released in 1968, entitled "Economic Impact of Irrigated Agriculture on the Economy of Nebraska," determined that for each dollar of increased production due to irrigation, a total of \$6.68 of economic activity occurs within the State. On this basis, it can be projected that irrigation development of the North Loup Division would stimulate an additional \$36 million of business activity in Nebraska each year. This impact would result in employment opportunities for many segments of the State's economy. Not measured by the University of Nebraska, but of recognized importance, is that there would be additional positive economic impact occurring in other parts of the Nation. The stimulative effects of alternative Federal programs have not been analyzed.

In its report (H. Rept. 91-986) on H.R. 780, 91st Congress, to authorize the Merlin Division, Rogue River Basin project, Oregon, for construction, the House Interior committee suggested that testimony in hearings on future reclamation authorizations take note of employment benefits created by the development of the project in any case where unemployment or underemployment in the immediate county or region is greater than the national average. In keeping with that suggestion, we have made such an evaluation of the constraints of present policy and procedure, but have not included these benefits as a part of the economic analyses in the reevaluation statement, because it is assumed that employment opportunities elsewhere are the major reason for local population loss.

Agricultural Economic Report No. 166 of the Department of Agriculture, dated October 1969, shows that in 1960 the economic underemployment of the civilian labor force as measured by the median income was severe for nearly all of Nebraska. For the six-county division area, the median income was only 46 percent of the median income of the Nation as a whole. Evidence that this severe underemployment still exists is contained in the 1970 population census. The six counties in which the North Loup Division would be located experienced an overall population loss of 9 percent from 1960 to 1970. This loss was during a period when the State was gaining 5 percent in population and the United States 14 percent. A chronic lack of employment opportunities together with significant underemployment of human resource—low median family income—are major factors contributing to population loss.

Construction and operation and maintenance of the division would provide local employment opportunities for unskilled and semi-

skilled labor. In addition, there would be a substantial increase in demand for hired farm labor. Local employment benefits have been computed to be about \$318,000 annually.

The Bureau of Outdoor Recreation has estimated that the total annual visitation at the proposed reservoirs would average about 50,000 days annually. Specific recreation facilities would include interior roads, parking areas, picnic areas, sanitary facilities, and boat ramps. These facilities would be located at designated day-use areas, camping areas, and at other specified areas adjacent to the reservoirs. Lands that would be acquired for other reservoir purposes would adequately serve the recreation needs. The recreation benefits have been evaluated at \$37,500 annually.

The Bureau of Sport Fisheries and Wildlife recommends that conservation and development of fish and wildlife resources be authorized as a project purpose. Although no specific enhancement measures are proposed, it is estimated the fishing and hunting use would increase by 18,900 fishermen and 170 hunter days annually as an incidental result of project development. Benefits for this purpose would total \$28,700 annually. Mitigatory measures would include establishing 150 acres of replacement habitat, and fencing of Hartford Grove, a mature cottonwood grove with an unusual understory growth which is utilized by a large number of great blue herons as a nesting rookery.

The Calamus River is not subject to flooding because the sandy soils, native grass cover, and the dune-type topography of the drainage basin combine to prevent almost all surface runoff from reaching the river. Davis Creek Dam and Reservoir would be located on a small tributary of Davis Creek and would have only six and one-half square miles of tributary drainage. In its evaluation, the Corps of Engineers concluded that no significant flood control benefits would result from the construction and operation of the division and that provision of flood control storage in the reservoirs would be neither warranted nor feasible.

The total annual equivalent benefits anticipated from development of the North Loup Division are approximately \$3.9 million of which about \$3.2 million are direct benefits.

The estimated construction cost of the division, based on October 1970 prices, is \$73,400,000. In addition, \$1,200,000 of the Pick-Sloan Missouri Basin program power investment allocated for irrigation pumping has been assigned to the division. The project and assigned costs total \$74,600,000. Annual operation, maintenance and replacement costs are estimated at \$324,000.

The economic justification is based on a Federal investment of \$76,500,000 which consists of \$74,600,000 of project and assigned costs and \$3,500,000 of interest during construction less \$1,600,000 of preauthorization investigations costs. The computed annual equivalent cost associated with this investment, based on a 100-year period of analysis at $3\frac{1}{4}$ percent interest, plus the estimated annual operation and maintenance costs total \$2,900,000. The ratio of total evaluated annual benefits to the estimated annual equivalent costs is 1.3 to 1.0. The ratio of direct benefits to costs is 1.1 to 1.0.

Senator BURDICK. Have you tried to analyze what the ratio would be if they were based on a 50-year period?

Mr. ARMSTRONG. They wouldn't be much different.

It is estimated that construction costs have increased by 9 percent since October 1970—the price level used in our reevaluation statement. Total project cost would be increased to \$79,500,000 as of January 1972. Using January 1972 costs, and without any other changes in the economic analysis, benefits would exceed costs in the ratio of 1.2 to 1 and 1.0 to 1 for total and direct benefits, respectively.

The division costs have been allocated as follows: Irrigation, \$71,900,000; recreation, \$362,000; and fish and wildlife, \$750,000. The irrigation costs would be repaid without interest over a 50-year period of which about \$13,800,000 would be derived from the local beneficiaries and the remainder from Pick-Sloan Missouri Basin program power revenues.

Power revenues are in prospect which will repay the balance of the reimbursable irrigation costs within 50 years plus a development period.

Senator BURDICK. How much have you estimated you need from power revenues?

Mr. ARMSTRONG. Approximately \$58 million.

Senator BURDICK. Will those funds be available at that time?

Mr. ARMSTRONG. Yes, sir.

In accordance with the Federal Water Project Recreation Act, the Twin Loups Reclamation District has indicated by letter dated July 28, 1969, its intent to administer the land and water areas of the division for fish and wildlife, and recreation, and to repay the associated reimbursable costs with interest. The reimbursable costs allocated to recreation amount to \$175,000 for construction, \$3,000 for interest during construction, and \$25,000 for annual operation, maintenance, and replacement. There are no reimbursable costs allocated to fish and wildlife because there are no separable lands or facilities.

The remaining costs allocated to recreation and fish and wildlife would be nonreimbursable as provided by law.

Senator BURDICK. How much does that come to; what percentage of the project?

Mr. ARMSTRONG. Ninety-nine percent will be repaid, leaving 1 percent non-reimbursable.

Senator BURDICK. One percent is nonreimbursable and applies to the fish and wildlife?

Mr. ARMSTRONG. Yes, and recreation.

Repayment of irrigation and recreation costs would total about \$72,100,000 or nearly 99 percent of the total project and assigned costs.

The impact of construction and operation of the North Loup Division upon the human environment has been examined pursuant to the National Environmental Policy Act of 1969. Our studies show that the impact would be very favorable on both the social and economic environment of the region. Construction of the two reservoirs having a combined surface area of nearly 6,300 acres would create water-oriented outdoor recreation and fish and wildlife resources and provide facilities for the public's use and enjoyment. The existing economy of the area would benefit from the stabilizing effect of irrigation production and from the impact of increased production

on the servicing, marketing, and processing industries in Nebraska and the Nation employment opportunities in a nonurban environment would be improved.

The adverse effects on the environment would be limited principally to inundating 13 miles of the Calamus River, the loss of natural wildlife habitat and agricultural lands, together with the dislocation of people and existing farming and ranching operations in the two proposed reservoir areas. There are presently nine in the area where people are living.

As previously mentioned, a unique ecological feature of the area, a mature cottonwood grove having an unusual understory growth and which also constitutes great blue heron nesting rookery, would be protected and preserved.

The Federal Water Quality Administration, now the Office of Water Programs, Environmental Protection Agency, reviewed the proposed plan and concluded that the applicable dissolved oxygen standards for the North Loup and Loup Rivers would be met. The return flows from irrigation would cause some increase in the concentration of dissolved solids; however, the resultant water quality would remain well within acceptable State-Federal standards.

The agency also recommended that further revision of the operation plan to make a portion of any excess July flows available in September be considered. No excess July flows at Calamus Dam are anticipated. However, operational criteria for months other than July and August will be studied further during post authorization investigations in an effort to improve the September flow condition, if possible.

A more detailed statement of the effects the proposed development would have on the human environment has been prepared pursuant to Section 102(2) (c) of the National Environmental Policy Act of 1969 and submitted to the Council on Environmental Quality as required by the act. A copy of the statement accompanied the Department's legislative report on S. 2350 and S. 352.

During post authorization the status of the existing irrigation in the project service area would be reassessed to avoid duplication of facilities and to assure the optimum development of the land and water resources of the area. This would involve further consideration of the ground-water uses by some irrigators in the project area, possible lowering of ground-water levels, the alternative service areas identified in the Secretary's report, and other similar matters.

Analyses would also be made to determine the extent to which lining canals and laterals or using an underground pipe distribution system would be justified. Refinements in the plan of development would also be accomplished. During the postauthorization study period, repayment contracts would be negotiated and executed with the existing local districts.

Local support for the North Loup Division is strong as is evidenced in the record of the hearings held before the Subcommittee on Irrigation and Reclamation, House of Representatives, at Ord, Nebr., on July 17, 1970. This support is further evidenced by the early organization of the Twin Loups Reclamation and Irrigation Districts, which have indicated their willingness to consummate the

required repayment contracts and assume the operation and maintenance responsibilities.

The Nebraska Soil and Water Conservation Commission endorses the authorization and construction of the proposed North Loup Division as a principal element of its State Water Plan Framework Study and an optimum development of the land and water resources of the area. On February 22, 1972, in Resolution 42, the Nebraska Legislature unanimously adopted the framework study of the Nebraska State Water Plan. The Nebraska Legislature also on February 22, 1972, unanimously adopted Resolution 44 supporting this development.

This proposed development is urgently needed and the local people have worked diligently for years to bring this proposal to its present status. No better answer to the Nation's urban problems can be found than by providing the economic opportunities necessary to support a favorable population distribution in rural areas such as this.

Therefore, we believe that the North Loup Division is a highly desirable water and related land resources development. It is economically justified and engineeringly and financially feasible. The beneficial effects of development would be great and widespread. I recommend favorable consideration of S. 2350 and S. 352, if amended, to include provisions of the Department's substitute measures as set forth in the legislative report of February 2, 1972.

That, Mr. Chairman, is my statement.

Senator BURDICK. Thank you very much. I notice there has been a Department substitute bill recommended?

Mr. ARMSTRONG. Yes.

Senator BURDICK. What are the chief differences between the Department substitute bill and the present legislation?

Mr. ARMSTRONG. Mr. McCarthy.

Senator BURDICK. Would you state your name?

Mr. MCCARTHY. Daniel V. McCarthy, chief of the Planning Division.

The primary difference is we deleted a reference to reclamation law. When it is authorized under the Pick-Sloan Missouri Basin program, the law would apply to the division by its own terms. Second, we suggested the deletion of section 4 of the bill which is the section which applies or states that within 10 years after authorization of the project there will be no surplus crop grown on newly irrigated land. These are the two primary changes; the others are minor drafting changes.

Senator BURDICK. Why did you delete section 4?

Mr. ARMSTRONG. This area is primarily a corn growing area, Senator, and with a dependable water supply it will become, as has happened in the area to the south, a staple crop production area.

Senator BURDICK. Do you know what the size of the corn crop was last year?

Mr. ARMSTRONG. In this area?

Senator BURDICK. In the country.

Mr. ARMSTRONG. Pretty good, because they overplanted because of the blight problem.

Senator BURDICK. I ask this, in all of the projects that come before the committee, they have had a surplus crop.

Mr. ARMSTRONG. Yes. In this instance we felt this will develop into a livestock producing area as has been done by the areas to the south. And thus, the contribution of the corn, for instance, will not add to the national surplus.

Senator BURDICK. I understand, the elimination of section 4, what is the third factor?

Mr. McCARTHY. Deletion of a reference to the project being covered by the Federal reclamation law. When it is authorized as a participating unit of the Pick Sloan Missouri Basin program, we don't need this reference to reclamation law.

Senator BURDICK. It has no effect or meaning then?

Mr. McCARTHY. No, Sir.

Senator BURDICK. Ninety-nine percent of this project is reimbursable because you get \$58 million from the Missouri River Basin Fund?

Mr. ARMSTRONG. That is true.

Senator BURDICK. And the balance of the 99 percent comes from power revenues?

Mr. ARMSTRONG. Yes, power revenues.

Senator BURDICK. What crops are raised in this area now?

Mr. ARMSTRONG. Corn, alfalfa, grain, Sorghum, and small grain. About 50 percent of the arable lands are in pasture.

Senator BURDICK. In your studies, what do they intend to raise after the water is there?

Mr. ARMSTRONG. We anticipate that a dependable supply of water will enable them then to establish a livestock industry. As of now the area is exporting feed grains. With the development of the project we anticipate it will reverse and be an importing area for feed grains.

Senator BURDICK. The nature of the crops won't change, will they? The type of crops wouldn't change very much?

Mr. ARMSTRONG. I expect some pasture land, will be used for cropland.

Senator BURDICK. That will be put into corn?

Mr. MAYNE. We expect the kind of crops, corn and alfalfa and pasture land to remain as they are now.

Senator BURDICK. Except you have a more reliable moisture at least?

Mr. MAYNE. Yes, Sir.

Senator BURDICK. In other words, you are going to intensify the growth of what you are growing now, mainly?

Mr. ARMSTRONG. Intensify and have an assured production.

Senator BURDICK. You testified that the cost-benefit ratio, based on the present costs, is now down to 1 to 1. Pages 7 and 8.

Mr. ARMSTRONG. Yes, based on January 1972 costs.

Senator BURDICK. Just barely under unity.

Mr. ARMSTRONG. Yes barely at unity.

Senator BURDICK. This is based on the interest rate of $3\frac{1}{4}$ percent, isn't it?

Mr. ARMSTRONG. Yes, which is the rate in accordance with the regulations that apply in this instance.

Senator BURDICK. What would the cost-benefit ratio be if the proposed interest rate were applied on this project?

Mr. ARMSTRONG. You mean $5\frac{1}{4}$ percent?

Senator BURDICK. Yes.

Mr. ARMSTRONG. About 0.7 to 1 for direct and 0.8 to 1 for total benefits. Of course, there are many factors that enter into the project that are not a part of the benefit-cost ratio. So it becomes a matter of trying to evaluate what these overall effects are and then judging their impact on the project.

Senator BURDICK. This project can be repaid in 50 years, can't it?

Mr. ARMSTRONG. Yes.

Senator BURDICK. Is that after development?

Mr. ARMSTRONG. Yes, after 10 years of development. Up to 10 years maximum.

Senator BURDICK. Have you calculated how many dollars will be required to meet the new proposed interest criteria for this project, in dollars? How much would it increase the cost?

Mr. ARMSTRONG. There would be no increase in project cost.

Senator BURDICK. The total costs are going to increase, with the increased interest?

Mr. ARMSTRONG. I see what you mean, you are talking about the annual cost?

Senator BURDICK. Yes.

Mr. ARMSTRONG. I don't seem to have that.

Senator BURDICK. Will you supply me with a figure to indicate what the difference would be between the $3\frac{3}{8}$ and $5\frac{1}{4}$?

Mr. ARMSTRONG. There would be no difference in the payout, Senator. That has no effect on it. This is a way of measuring the benefits and costs. This is based on the procedures by which these evaluations are made. It has no effect on the amount of payoffs.

Senator BURDICK. I see.

Supply me with the differences the interest rates will make.

Mr. ARMSTRONG. All right, fine.

(The information follows:)

Annual benefits: $3\frac{3}{4}$ percent equals \$3,871,000 and 5% percent equals \$3,740,800.

Senator BURDICK. I think that completes the questions I have at this time, Mr. Armstrong.

Mr. ARMSTRONG. Thank you, Mr. Chairman.

Senator BURDICK. Our next witness is Mr. Dan Jones, Jr., director of the Department of Water Resources, State of Nebraska.

STATEMENT OF TED JOHNSON, EXECUTIVE SECRETARY, NEBRASKA SOIL AND WATER CONSERVATION COMMISSION, LINCOLN, NEBR., ON BEHALF OF DAN JONES, JR., DIRECTOR OF THE DEPARTMENT OF WATER RESOURCES, STATE OF NEBRASKA

Mr. JOHNSON. I am Ted Johnson, chairman of the soil and water conservation. Dan Jones cannot attend this morning.

Senator BURDICK. Very well. Has Dan Jones a statement to file?

Mr. JOHNSON. Yes, it has been filed.

Senator BURDICK. Very well, it will be made a part of the record.

Mr. Johnson, do you want your statement filed, is that it?

Mr. JOHNSON. No, on behalf of the soil and water conservation, I would like to read my statement, but I am speaking for Dan Jones of the water resources.

Senator BURDICK. All right, you may proceed.

Mr. JOHNSON. Mr. Chairman and members of the Senate Subcommittee on Water and Power Resources, I am Ted Johnson, chairman of the Nebraska Soil and Water Conservation Commission. I welcome this opportunity to state the commission's position in favor of authorization of the North Loup division project in Nebraska.

Among its several authorities the commission has the responsibility to plan, develop, and encourage the implementation of a comprehensive program of resource development, conservation, and utilization for the soil and water resources of Nebraska. This broad responsibility assigned by the State legislature is reflected in the composition of commission members and advisors which represent municipal and industrial water users; watershed districts; soil and water conservation districts; irrigation districts; business interests; health officials; recreation interests; power interests; the Governor's office; and the University of Nebraska.

As part of the broad responsibility for water and related land resources planning, the commission is charged with preparation of Nebraska's State Water Plan. In May, 1971, the commission completed and presented to the Nebraska Legislature a report on the framework study which is to act as a broad flexible guide for future water resources development in the State. After review of the Framework Study Report, the legislature adopted a resolution accepting the framework study as a flexible guide for in-basin development of the State's water resources. The North Loup project is included in that basic framework for development and is an integral part of Nebraska's State Water Plan.

Just last month the legislature adopted Resolution 44 memorializing the Congress to provide early authorization and funding of the North Loup division. A copy of that resolution is attached to the statement submitted for the record. Legislative Resolution 51 of the last legislative session requested similar action. A copy of that resolution is also attached.

Residents of the local area that would be affected by project construction have for nearly 25 years worked enthusiastically for this project. In 1954 the desire for the project was shown by formation of the Twin Loup reclamation district. Four years later this continuing support resulted in formation of the Twin Loup irrigation district. Residents of the area to be benefitted from the project have worked long and hard to bring the project proposal from an idea in rural Nebraska to where it is before you here today.

At the beginning of Nebraska's State Water planning activities, this project was examined by the Nebraska Soil and Water Conservation Commission. They issued a policy statement which urged the Congress of the United States to take early action to authorize the North Loup project for construction and operation as part of the Missouri River Basin project. That policy statement was unani-

mously adopted by the Commission in November 2, 1967. It was reaffirmed last month and a copy is attached to the statement submitted for the record.

At field hearings conducted by the House of Representatives Subcommittee on irrigation and Reclamation held in Ord, Nebr., on July 17, 1970, the commission, along with four other State agencies and the Governor of Nebraska, presented statements encouraging authorization of the North Loup project. At those field hearings support for the project was demonstrated all the way from the individual farmer to the State level. Nothing has changed, the support is still there.

Nearly 53,000 acres in the valleys of the Loup and the North Loup Rivers are suitable for irrigation and could be supplied with water from this project. Neither ground nor surface water is presently available to supplement the naturally low precipitation in this area. Irrigation water supplied from this project would provide the diversification of crops which in turn would help stabilize the rural economy. This area of the State has, in the past, experienced outmigration of population and all of the problems which accompany it. Irrigation and resulting stabilization of the rural economy would help hold the youth in the area and lessen the impact of migration into urban centers.

Although this is mainly an irrigation project, recreation, fish and wildlife benefits will be realized. These benefits are estimated to be small, about 1 percent, but past experience shows that we generally underestimate these activities around water areas. This does, of course, result in nearly 99 percent of the estimated project costs being reimbursable to the Federal Treasury. In addition, the irrigation district sponsoring the project has provided a letter of intent to costshare the project's recreation enhancement facilities in accordance with the Federal Water Projects Recreation Act. The commission believes that the environmental improvements to be provided by this project are far in excess of any environmental detriments.

Old controversies have been resolved. The project has support throughout the basin. It is included as an integral part of Nebraska's State Water Plan, supported by the Governor and by all the State resource agencies. It was reevaluated by the Bureau of Reclamation in 1971, and found to meet all Federal requirements for authorization and construction.

Mr. Chairman and members of the subcommittee, I urge your favorable action towards authorization of this worthwhile project. We in Nebraska believe that this is a sound investment in the future of our State and of our country.

Thank you.

Senator BURDICK. Thank you, Mr. Johnson. Were you in the hearing room when the Commissioner testified?

Mr. JOHNSON. Yes, sir.

Senator BURDICK. In the original bill as filed by the Senator from Nebraska, there was a section 4 in the bill. Being from an agricultural area, and having discussed this matter with many of our colleagues, we find there is considerable resistance to having farm programs sponsored by the Federal Government create more sur-

pluses. I was wondering what your feeling was about keeping section 4 in it, because it may be much easier to pass this legislation with section 4 in it than with section 4 out.

There is quite a development period, you know. I wonder if there is an objection to leaving Section 4 in.

Mr. JOHNSON. Well, being a farmer myself in the area, I would almost have to answer like the Commissioner did, this is a more personal thing than anything else. I think surpluses are a temporary process and the scare we had when we thought we were going to have the corn blight and so forth, why we thought our surpluses were going to be wiped out. I don't know how meaningful this is. This is my personal opinion.

Senator BURDICK. You say that surpluses aren't going to be there very long, this isn't going to be built tomorrow either, it may come together at the same time.

Mr. JOHNSON. Frankly, Senator, speaking for the Commission, this has not been discussed at all. I wouldn't be able to make a statement as far as the Commission is concerned.

Senator BURDICK. What is amazing to me is that the Senators had it in their bill.

Mr. JOHNSON. Yes, I see the problem.

Senator BURDICK. Thank you, very much.

(The statement of Dan Jones, and other material referred to by Mr. Johnson follows:)

STATEMENT OF DAN S. JONES, JR., DIRECTOR DEPARTMENT OF WATER
RESOURCES STATE OF NEBRASKA

MR. CHAIRMAN: My name is Dan S. Jones, Jr., and I am Director of the Nebraska Department of Water Resources, a position I have held for more than twenty years. The Department has jurisdiction over all matters pertaining to water rights for irrigation, power and other useful purposes. It also has jurisdiction in the formation of irrigation districts, reclamation districts and other types of water districts.

I have followed closely the plan of the North Loup Division since its inception. The formation of the Twin Loups Reclamation District, a conservancy type district organized within the North Loup Division, was approved by the Department in 1954, and the Twin Loups Irrigation District formation was approved in 1958. With these two districts functioning the necessary local entities are available to enter into repayment contracts with the Bureau of Reclamation for the North Loup Division.

I am in accord with the stipulation entered into on February 19, 1969, by the Twin Loups Reclamation District and the Lower Loup Platte Association, which provides that the Department in approving the district's water rights shall impose the condition that no natural flows of the North Loup or Calamus Rivers may be diverted for the irrigation of lands in the North Loup Division during the months of July and August of any year, and also in September if storage water is available at that time for such lands. Through this stipulation it is assured that irrigation on the North Loup Division will not deplete the water supply of the Calamus and North Loup Rivers during those months.

The North Loup Project is a desirable one, and I urge that your Committee support its authorization by acting favorably on S. 2350.

LEGISLATURE OF NEBRASKA
EIGHTY-SECOND LEGISLATURE
SECOND SESSION

LEGISLATIVE RESOLUTION 44

Introduced by the Interim Study Committee on State Water Planning, Maurice A. Kremer, 34th District; Irving F. Wiltse, 1st District; Otho G. Kime, 43rd District; Rudolf C. Kokes, 41st District; Ellen E. Craft, 45th District; Wayne W. Ziebarth, 37th District; E. Thome Johnson, 15th District

WHEREAS, the Bureau of Reclamation and collaborating agencies have investigated in varying degrees of refinement a number of potential multiple-purpose water and related land resource development projects in Nebraska; and

WHEREAS, one of these proposed developments, the Nebraska Mid-State Division, has been authorized for construction and the advance planning work is underway but it has not been funded for construction; and

WHEREAS, five others, the North Loup Division, the O'Neill Unit, the Mirage Flats Project (Supplemental Water), the Little Blue Unit, and the Cedar Rapids Division have met the required tests of engineering and economic feasibility; and

WHEREAS, the North Loup Division, the O'Neill Unit, and the Mirage Flats Project are presently before the Congress; and

WHEREAS, four others, the Logan Unit, the Highland Unit, the Norfolk Unit, and the Sunbeam Unit have been investigated to less than feasibility standards and appear to be economically and engineeringly feasible; and

WHEREAS, all of these proposed developments appear to be compatible with Nebraska's long-range planning for development of water and related land resources and have been included in the Basic Framework.

NOW, THEREFORE, BE IT RESOLVED BY THE MEMBERS OF THE EIGHTY-SECOND LEGISLATURE OF NEBRASKA, SECOND SESSION:

1. That the Legislature memorializes the Congress of the United States and the respective committees thereof, to support the proposals of the Bureau of Reclamation for these developments, and


- a. Provide funds to initiate construction of the authorized Nebraska Mid-State Division as soon as all advance planning requirements of the authorizing legislation are met.

- b. Provide early authorization and funding for construction of the North Loup Division, the O'Neill Unit, the

Mirage Flats Project (Supplemental Water), the Little Blue Unit, and the Cedar Rapids Division, all of which have been found feasible and have local sponsoring districts.

c. Provide necessary funds for continuation of the Bureau of Reclamation's Nebraska State Water Plan studies and for feasibility studies for the Logan Unit, the Highland Unit, the Norfolk Unit, and the Sunbeam Unit.

2. That copies of this resolution be transmitted by the Clerk of the Legislature to the United States Senate and House of Representatives, to the Honorable Henry Jackson, Chairman of the Senate Committee on Interior and Insular Affairs, the Honorable Wayne Aspinall, Chairman of the House Committee on Interior and Insular Affairs, and to each member from Nebraska in the Senate and the House of Representatives of the United States.



PRESIDENT OF THE LEGISLATURE

I, Vincent D. Brown, hereby certify that the foregoing is a true and correct copy of Legislative Resolution 44, which was passed by the Legislature of Nebraska in Eighty-second Legislature, Second Session, on the twenty-second day of February, 1972.



CLERK OF THE LEGISLATURE

LEGISLATURE OF NEBRASKA
EIGHTY-SECOND LEGISLATURE
FIRST SESSION

LEGISLATIVE RESOLUTION 51

Introduced by Rudolf C. Kokes, 41st District; Herb Nore,
27th District; Maurice A. Kremer, 34th District

WHEREAS, investigation by the United States Bureau of Reclamation has shown that a multipurpose water development project in Loup, Garfield, Valley, Greeley, Howard, Merrick and Nance Counties, Nebraska would provide large benefits for irrigation, recreation and fish and wildlife to the people of the State of Nebraska; and

WHEREAS, studies completed by the Nebraska Soil and Water Conservation Commission for the Nebraska Water Plan show that the project would be desirable and compatible with total State Water Resources Development; and

WHEREAS, House Bill, H. R. 869 and Senate Bill, S. 352, for authorization and construction of this Project were introduced by Congressman Dave Martin and Senators

Roman L. Hruska and Carl T. Curtis and are presently being considered by the House of Representatives and the Senate of the United States; and

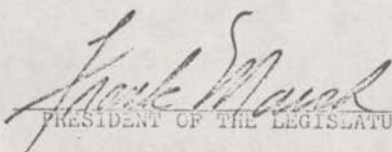
WHEREAS, in 1968 the University of Nebraska released a study of the economic impact that irrigation crop production has on the economy of the entire State of Nebraska, and applying the results of this study to the North Loup Division shows the development would add about \$36,000,000.00 annually to business in Nebraska; and

WHEREAS, local support for the North Loup Project has always been strong and the owners and operators of the irrigable land are highly in favor of the Project.

NOW, THEREFORE, BE IT RESOLVED BY THE MEMBERS OF THE EIGHTY-SECOND LEGISLATURE OF NEBRASKA, FIRST SESSION:

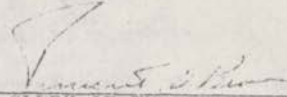
1. That the Legislature memorializes the 92nd Congress of the United States and the respective Interior Committees thereof, to support the proposals of the Bureau of Reclamation for the North Loup Division and approve the above legislation for its authorization and construction.
2. That funds be provided to the United States Bureau of Reclamation in Fiscal Year 1971-72 for preconstruction planning of the North Loup Division.
3. That copies of this resolution, suitably

engrossed, be transmitted by the Clerk of the Legislature, to the United States Senate and House of Representatives of the 92nd Congress, to Honorable Henry Jackson, Chairman of the Senate Interior Committee, and Honorable Wayne Aspinall, Chairman of the House Interior Committee, and to each member from Nebraska in the Senate and House of Representatives of the United States.


PRESIDENT OF THE LEGISLATURE

I, Vincent D. Brown, hereby certify that the foregoing is a true and correct copy of Legislative Resolution 51, which was passed by the Legislature of Nebraska in Eighty-second Legislature, First Session, on the twenty-fourth

day of April, 1971.



CLERK OF THE LEGISLATURE

PROGRAMS:

SOIL & WATER CONSERVATION
WATERSHED PROTECTION
FLOOD CONTROL
RIVER BASIN INVESTIGATIONS
FLOOD PLAIN STUDIES

State of Nebraska
Soil and Water Conservation Commission

P. O. BOX 94725
STATE CAPITOL
LINCOLN, NEBRASKA 68509

POLICY STATEMENT IV

(PROJECTS)

NORTH LOUP DIVISION, NEBRASKA
MISSOURI RIVER BASIN PROJECT

Responsibility for comprehensive land and water resources planning in Nebraska has been assigned by the Legislature to the Nebraska Soil and Water Conservation Commission. The Commission, as a part of this responsibility, is developing a State Water Plan to achieve full development and maximum use of Nebraska's water resources. A feasibility report on the North Loup Division has been completed and printed as House Document 491. The plan includes development of Calamus Dam and Reservoir near Burwell, Nebraska and Davis Creek Dam and Reservoir near North Loup, Nebraska as well as the provision of project irrigation water to 52,570 acres of land. The Commission endorses the current plan for the North Loup Division as a principal element of the State Water Plan.

The North Loup Division will stabilize and enhance the agricultural economy of a significant portion of Nebraska. The effect of such a project in stabilizing and in stimulating additional economic development in the surrounding area has been demonstrated both in Nebraska and elsewhere. To this end, the 52,570 acres of the North Loup and Loup River Valley lands to be irrigated in this Division are capable of sustained high yields of a wide variety of crops to be used in part in stabilizing and augmenting feed supplies for livestock.

COMMISSION MEMBERS

JOHN ADAMS - BOB BELL - MILTON H. FRICKE - E. F. FROLIX - WESLEY HERBOLDUSHEIMER - DAN S. JONES, JR. - ELMER JURACEK - WENDELL LAUBER - EMERY LEE - EARL LUFF - DEMPSEY MONTEL - J. R. PRINGLE - E. C. REED. ADVISORS: CHARLIE COCKS - T. A. FILIPI - PAUL HARLEY - JOHN HOSSACK - KEITH MYERS - MEL STEEN - DON THOMPSON.

This project lies entirely within a ten county area of central Nebraska which until recently was designated as a "Rural Redevelopment Area." The impetus given to the local economy by the use of local labor and services for construction, operation and maintenance of this project would be an important benefit in addition to those used in the current economic analysis.

Central Nebraska has only limited recreational facilities. This project would provide not only an opportunity for local residents to enjoy water based activities but, in addition, would provide a base for the development of a local tourism industry.

Economic feasibility for this project has been well established and, even in view of increasing costs, well justifies development. Based on 1964 conditions, the project is estimated to produce over \$2.40 of benefits for each \$1 invested and 96 percent of the project cost is reimbursable.

Of the costs allocated to irrigation, over 30 percent will be repaid by the local districts.

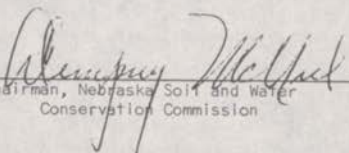
This proposed development has broad support in Nebraska. The local residents in 1954 voted by a two-to-one majority to permit the Twin Loups Reclamation District to levy an ad valorem tax on all tangible property in the district. In 1958, again by a two-to-one majority, residents over the general area voted and formed the Twin Loups Irrigation District with taxing authority over the affected district lands. These districts have made application for the required water rights and have stated their willingness to do all other things necessary to obtain development. The Nebraska Reclamation Association and the Nebraska Irrigation Association, as well as many groups in the area, have strongly supported this project. The Nebraska Game and Parks Commission has agreed to meet the non-federal obligations associated with fish and wildlife enhancement and recreation development in accordance with the "Federal Water Project Recreation Act."

- 3 -

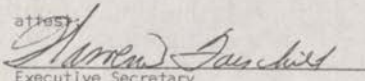
The Nebraska Soil and Water Conservation Commission recognizes the need for early development on the North Loup Division as part of the State Water Plan. In view of the extensive and continuous support of the local residents over the past 23 years, together with state-wide expressions of support, the sound economic justification, and the engineering feasibility of this Division, the Commission strongly endorses development and urges the Congress of the United States to take early action to authorize its construction and operation as a part of the Missouri River Basin Project.

Approved by Unanimous Action of the Commission Members

on November 2, 1967


Chairman, Nebraska Soil and Water
Conservation Commission

attest:


Executive Secretary
Nebraska Soil and Water Conservation
Commission

Senator BURDICK. We have some travel problems here. If I don't get any strenuous objections from the witnesses in the order they are listed, I would like to hear from Mr. George Svoboda, from the city of Fremont, and Mr. Easton from the Upper Loup.

Just a minute, we have another witness just arrived.

Senator CURTIS. Go ahead.

STATEMENT OF GEORGE E. SVOBODA, ATTORNEY FOR BOARD OF PUBLIC WORKS OF THE CITY OF FREMONT, NEBR., COUNTY OF DODGE, NEBR., AND LOWER LOUP PLATTE WATER ASSOCIATION, INC.

Mr. SVOBODA. Mr. Chairman, I have a prepared statement and I have some exhibit copies.

I am George E. Svoboda, attorney of Fremont, Nebr., who primarily represents the Board of Public Works of the city of Fremont, Nebr., which controls and handles the water functions of the city. It operates 23 city wells now and projects 30 more for use in the next 20 years. It also is generally in charge of the flood protection for the city.

I am also attorney for the Lower Loup Platte Water Association, Inc., an organization of various counties and cities on the Lower Loup Platte River system from Monroe, Nebr., to the mouth of the Platte. These cities through the Lower Loup Platte Water Association have been instrumental in providing a constant objection to piecemeal installation of irrigation projects in the Upper Loup Rivers, which failed to recognize the downstream interests. The cities along the Platte have a direct interest in a controlled wet flowing Platte, because of the relationship between first: surface stream to the underground stream in the Platte Valley and second, flooding situation as regards their water wells, and third, for those cities like Fremont who are right next to Platte, the Flooding potential of the Platte.

I have been asked to present the urban interest in Lower Platte River waters and to emphasize that aspect. These urban water interests include the water needs and problems of Schuyler, North Bend, Fremont, Valley, Lincoln and Omaha, constituting little less than a majority of the population of the State of Nebraska.

The Loup River System in Nebraska is the principal source of water for the Lower Platte. The Lower Platte is a sandbottomed river and the whole Platte valley is underlined with sand and gravel strata through which surface waters of the Platte permeate down to well leaven aquifers. We consider the Upper Loup System a part of our stream.

Fremont, Schuyler, North Bend and probably Lincoln were using the waters of the Platte long before a single irrigation project was ever installed on the Upper Loup. Omaha's interest through the metropolitan utilities district of Omaha has within the last 4 years developed a well field on an island in the middle of the Platte. Fremont has also filed all of our city wells with the Nebraska Department of Water Resources to stake out their claim to underground

water rights, which we believe are related to surface flow in the Platte.

It is no secret that almost every summer, west of Columbus, the Platte River is virtually dry. There is attached to my statement a photocopy of a story from the Fremont Tribune as exhibit No. 1, covering general effect of the dryness of the Platte near Fremont in 1963, indicating by picture it would not even float a Boy Scout's canoe that summer. We city people were first told by Upper Loup River interests, when we voiced objection as to the effect of their projects, that it was no concern of ours and that there was no danger in the Loup irrigation dams cutting off all the water.

We are pleased to advise that for the first time in Nebraska, at least, an agreement has been reached with Upper Loup River interests, so that this project has a scope broad enough to cover all lower stream interests because the Loup River system is, as stated above, the principal source of water both above and below ground for the Lower Platte. We are not here merely to testify that we agree to reauthorization, but to also establish a record that as to this and any and all other projects in the Loup or even Upper Platte, that we citizens of Nebraska cities on the Lower Platte have a vital and direct interest in upstream projects which must be protected when upper stream projects are designed.

One principal problem at Fremont is floods. We did have a problem in 1960, at which time I was mayor and did become very deeply involved in a major flood by directing the disposition of personnel and sandbags to heighten our flood dike. Attached is exhibit No. 2 which is the Fremont newspaper study of that 1960 flood. We had to sandbag the top of dike to keep the waters from inundating the major portions of the city of Fremont.

Fortunately, about 1910, before Federal aid, this dike was built to keep the Platte from covering lower portions of Fremont every spring flood. This dike is a considerable distance from the river edge and is purely a flood dike designed to allow spring flood waters to pass on the wet side of the dike. Of course, on the wet side of the dike there are now many homes, lakes, and recreation areas.

This dike in the Fremont area has been raised, as a result of the 1960 flood so it may handle Fremont flood problems, so long as there is a reasonably decent channel in the Platte River, which will accommodate not only the usual flows but the floodflows.

But if the Platte River is to be dry due to irrigation projects, then it becomes nothing but a forest of willows and trees as is the Platte in areas west of Columbus. This, of course, enhances flood risk. The usual flow of floodwaters is forced upon the dikes in the manner that we have not provided for. We do not believe the Platte River should become a forest of willow trees through the lack of a scouring flow of water.

It is our basic contention that the piecemeal dam projects on the Upper Loup which are designed only for irrigation purposes are and will be a source of problem to the Lower Loup-Platte water interests. We admit in Fremont and lower areas that we have been johnny-come-latelies in this matter of protecting our water rights. This comes about because we were not aware of the effect of the

piecemeal irrigation projects cutting off the flow of the Loup River. We didn't know that "our" interests in the underground streams were being subtly taken by others. It was pointed out to us in Fremont about 10 years ago that one more major project on the North Loup and Calamus was going to cut off the water so the Platte River would be dry in the summertime. This, of course, alarmed the officials of Fremont and other Platte interests and as a result of that, the Lower Loup-Platte Water Association, Inc. was formed, its purpose being not solely to stop projects but to bring about comprehensive utilization of the Loup and Lower Platte waters so that all share equitably and not just those in the Upper Loup.

The net effect of these various upper projects is to dry the Lower Platte and make the domestic wells and irrigation wells already existing in the Platte River, worse than they were before.

The Bureau of Reclamation came to recognize the need of providing for lower stream interests which resulted in the inclusion in Senate bill 2350 of the following paragraph:

Sec. 5. The North Loup Division shall be so constructed and operated that no water shall be diverted from either the Calamus or the North Loup Rivers for any use by the Division during the months of July and August each year; and no water shall be diverted from said rivers during the month of September each year whenever during said month there is; sufficient water available in the Division storage reservoirs to deliver the design capacity of the canals receiving water from said reservoirs."

I am not skilled enough to know what the direct effect of this July and August release of waters will be. We have been assured by the Bureau engineers that it will be sufficient to keep a flowing Platte, scour the Platte so that there is a percolation of waters from the sandy bed of the Platte to the undergrown aquifers below, and thus prevent a forest of willows down the middle of the Lower Platte. We want the flow to permeate as it does now, through the Platte River sands in sufficient amount to recharge city wells that are along the Platte and put there to obtain underground waters for urban use.

We attach exhibit No. 3, a study by Mr. Adolph Meyer, a noted hydraulologist now deceased, as to the effects of a dry Loup-Platte. To justify our claim of the cities with water wells on or near the Platte, we submit as exhibit No. 4, a photocopy of E. Bruce Meier's paper presented to a meeting of engineers in 1953 relative to the determination of the percentage of induced infiltration from the Platte River to water wells at Ashland operated by the city of Lincoln. His conclusion at page 25 is that 80 percent of the water in Lincoln's wells comes by induced flow from the Platte River surface flow. This study was done when he was a professor at the university and long before most of the projects on the Loup were constructed, and thus can provide you with an independent basis for "our" interest in underground waters of the Platte.

I wish to reemphasize the interests of Fremont and the Lower Loup Platte Water Association are that we approve irrigation dams if they take into consideration in their construction, design and their operation the lower river interests. We say this boils down to a sim-

ple matter of allowing and permitting a controlled ample flow of water in the Lower Loupe-Platte. Our experts tell us that a dry Platte means dry wells or deeper wells to be dug. Deeper wells in the Fremont area will require us to dig wells through shale into another strata which, in effect, becomes a mining of water. A study of mining of water has been done by Black & Veatch, consulting engineers of Kansas City for the city of Grand Island. The chemical content of the water at sub-shale levels changed so much in Grand Island that certain industries cannot rely or use the Grand Island well sources for industrial purposes.

We don't believe that the upper river interests have the legal or equitable right to force Fremont into mining water, or increasing our costs of obtaining water in the lower river areas. We can in court prove, if necessary, that we in Fremont were using these underground waters first and thus appropriated them to our use for domestic purposes, which under the Nebraska law is the highest use preference. We are not interested in lawsuits. We are interested in practical solutions to utilization of water and have repeatedly stated we want improvements on the Loup Rivers to be designed with interests of lower stream protected.

We are here to make another record of the reasons for our long objection and indicate we are now in agreement with North Loup project, because the Bureau of Reclamation and other engineers have assured us that the above paragraph in the above bill will give us reasonable protection. Obviously, this paragraph has increased the size and cost of the project, but we think this is necessary if the Senate and House are to have broad scope concern in all interests along the Loup and Lower Platte.

Small, virtually single purpose damages, i.e., irrigation that store only enough water for the limited purpose, do not protect lower river interests. They store insufficient waters to be of flood protective device at high water time, i.e., spring, and do not have enough water for keeping a channel open in lower water time, i.e., July, August, and September.

We insist that any reservoirs built in the future upon any of the Loup Rivers be designed with downstream interest considered. The Bureau of Reclamation had indicated there was not a great risk of a dry Platte by completion of all the Upper Loup River system dams. The Bureau of Reclamation, of course, would not give us a guarantee to open the gates on these projects to provide flow in the Lower Platte River, so that we will have the same kind of flow that historically the average rainfall has granted us in the past; thus, we have to insist on higher and bigger dams and paragraphs such as the above to assure flows.

The difference in approach to the utilization of Loup-Platte waters is generally well presented in the Lincoln Journal by Ellis Rall, which is attached as exhibit No. 5, and by Woodson Howe in the Omaha World Herald, also attached as exhibit No. 6. These series indicate there is a real problem of diverse interests in the water resources of the Loup-Platte system. We hope the agreement with the North Loup people and the wording in the above paragraph is a fair solution to all river interests.

It is interesting to note that one of the basic reasons for the mid-State project—multipurposed—sponsored by the Bureau of Reclamation is to help recharge underground flows along the Platte River near Grand Island. Mid-State advertising shown by exhibit No. 7 attached, shows how mid-State will add depth to the groundwater. We believe this same approach should be taken as to the Lower Loup—Platte.

There is also the effect of a dry Platte on subsoil moisture for existing cropland in the Platte River Valley. Tom Eason, a North Bend, Nebr., farmer, who is to testify, may expand on this. The Platte Valley in natural state has good subsoil moisture, which is recharged by the surface flows over the sandy bottom of the Plate. We are hopeful that "our" agreement, based on the above paragraph in the law, will protect the water of farms in the valley also, because our cities in Nebraska are directly connected to the economy of the farms.

Thus, Fremont wanted to make a separate urban presentation and thus support Senate bill 2350 with the paragraph quoted above.

Thank you.

Senator BURDICK. Thank you for your statement.

It is my understanding you support this legislation based upon the testimony of Mr. Armstrong, if it would interrupt the flows during the summer months?

Mr. SVOBODA. Yes.

Senator BURDICK. Thank you.

(The exhibits referred to by Mr. Svoboda were retained in the committee file.)

Senator BURDICK. Next is Senator Carl T. Curtis, the sponsor of this legislation.

STATEMENT OF HON. CARL T. CURTIS, A U.S. SENATOR FROM THE STATE OF NEBRASKA

Senator CURTIS. Thank you, Senator. I am sorry I am late. I just arrived on the plane.

Mr. Chairman, I am honored to have the opportunity to appear before this committee today in furtherance of the North Loup reclamation project. I am especially honored to be able to appear here with the Nebraska contingent of witnesses in support of this project.

I wish to stress at the outset that the North Loup project has broad public support among the people living in the area to be served. I have with me petitions signed by 335 persons supporting the Twin Loups irrigation and reclamation project, of which this project is a part. I understand that the names on these petitions include 14 of the 16 people living in the proposed basin or reservoir area. I also have copies of resolutions passed by the Valley County Board of Supervisors and the Ord Rotary Club. There will be more petitions at a later date, but I am satisfied that I can speak for the vast majority of people who cannot be here today when I say that this is a sound and beneficial project which will serve the people of the immediate area, the State of Nebraska and the Nation at large in very commendable fashion for all the years ahead.

This project has been researched, planned, evaluated, revised and reevaluated over a period of many years until today we can be as certain as possible that it will stand the test of time. It is not merely an irrigation and reclamation project, it is an environmental improvement and conservation project. It will serve not only to boost agricultural income and thus the economy of the immediate area, but also will bolster ground water supplies for existing municipal and irrigation uses downstream. This unusual characteristic is reported in the February 2, 1971, letter from Assistant Secretary of the Interior Jim Smith to the Honorable Henry M. Jackson, chairman of the Committee on Interior and Insular Affairs, on page 2, where it states:

Under the plan now recommended, no natural flows of the North Loup and Calamus Rivers would be diverted for irrigation purposes during the critical water supply months of July and August and some years in September. This would permit maintaining downstream flows in the Loup and Platte Rivers for recharge of ground water for existing municipal and irrigation uses and minimizing the adverse impact of project water withdrawals on water quality and the existing ecology.

Assistant Secretary Smith points out that this operational change will result from adding the Kent Diversion Dam and the Kent Canal to obtain water from the North Loup River and enlarging Calamus and Davis Creek reservoirs, by building slightly higher dams in both cases, to increase their conservation storage capacity by 32,000 acre-feet.

Under the revised plan, the Calamus Dam and Reservoir on the Calamus River near the town of Burwell will have a storage capacity of 128,200 acre-feet while the off-channel Davis Creek Dam and Reservoir will provide storage of 32,500 acre-feet.

Irrigation water from those two facilities will provide full irrigation service to 52,570 acres of farmland through six principal canals, nine pumping plants, and laterals as required to afford delivery to individual operators.

Agricultural benefits will result from stabilized moisture availability to take the place of uncertain conditions which have caused the economy of the area to suffer periodically in the past. With a more dependable farm income situation, towns in the area will better be equipped to offer job opportunities and thus hold young people in the area who heretofore have left to find more favorable opportunities in larger urban centers, some in Nebraska and many outside our State. This fact alone is important not only to the economy but also to the environment, I submit, Mr. Chairman, because our big metropolitan centers are becoming so choked with masses of people, cars, trucks, factories, and the concentrations of pollution they create that they cannot long endure if people from the rural areas continue migrating to the metropolitan areas.

The environment of the immediate area will be improved through recreation and fish and wildlife benefits which will accrue from creation of the Calamus and Davis Creek reservoirs.

The Bureau of Reclamation has estimated from its detailed studies that the measurable benefits from this project will add up to \$3,871,000 annually. Of that amount, the benefits in added farm income stemming from irrigation are estimated at \$3,127,000 directly

and \$677,800 indirectly, the latter including public benefits. There will be an estimated \$37,500 annually in outdoor recreation benefits created by the two bodies of water that will be created, plus \$28,700 annually in hunting and fishing benefits.

Our people, our water and our soil are our most precious resources, Mr. Chairman. This project will make life materially and environmentally better for our people, and it will enable them to make better use of the water and soil, thereby serving the cause of conservation. It will strengthen not only the economy and water supply of the immediate area, but will improve the downstream municipal and irrigation water supplies. It will ease life in the far-off big cities a little by providing increased opportunities and attractions for people to live in the rural area.

It is an all-around good project, Mr. Chairman, and should be approved by this committee. Thank You.

Mr. Chairman, I would like to, at this point, insert a statement of Congressman of Nebraska, in whose district this project is located, and also the petitions that I referred to, the resolution of the Rotary Club, the resolution of the Valley County Board of Supervisors, plus a petition signed by a large number of residents of that area.

Senator BURDICK. It will be received without objection.

I have just one question, Senator.

Section 4 of your bill is the ordinary and customary section we put in all of these irrigation bills, and the committee has done this for some time. Being from an agricultural area, I am sure you are aware of the criticism we get for using Federal money when there is surplus crop production. I would urge that you keep that section in.

The Commissioner this morning suggested taking it out.

Senator CURTIS. You are referring to the section which prohibits new irrigated lands growing any additional commodities which are supplemental to the Government program?

Senator BURDICK. Yes. You understand you have quite a lengthy construction period. I think it is hard to justify expenditure of funds when you have surplus crops.

Senator CURTIS. It is my understanding the North Loup is agreeable to this. I think an argument can be made in reference to it because of the change that comes to agriculture, the increased amount of livestock production. Another thing, there is an argument that can be presented, but I am anxious to see this legislation being advanced, and this does avoid an obstacle that has often been raised.

Senator BURDICK. I am sure the Senator has understood the attitude that I have expressed.

Senator CURTIS. Yes.

Senator BURDICK. Thank you very much.

Senator CURTIS. Thank you.

(The material submitted by Senator Curtis follows:)

STATEMENT OF HON. DAVE MARTIN, A U.S. REPRESENTATIVE IN CONGRESS
FROM THE STATE OF NEBRASKA

Mr. Chairman and members of the Reclamation Subcommittee: I want to thank the Chairman for the courtesy extended in taking time to hold hearings on the Twin Loups Reclamation and Irrigation Project. This Project was originally authorized as an integral part of the Missouri River Project by the

Flood Control Acts of 1944 and 1946, but reauthorization is required by provisions of the 1964 Act.

The Project would be a multi-purpose water resources development in the basins of the Calamus, North Loup and Loup Rivers in central Nebraska to provide benefits from irrigation, outdoor recreation and fish and wildlife enhancement.

The citizens in this district have been working for the past 30 years to make this Project a reality. The support, as witnessed in the field hearings a year and a half ago, is testimony to this.

The Project consists of the Calamus Reservoir, which would store 128,200 acre-feet of water, and the off-channel Davis Creek Dam and Reservoir, which would store 32,500 acre-feet. Irrigation water provided by these facilities would be distributed to 52,570 acres. The total estimated project cost based on October, 1970 price levels is \$73,007,000. Total evaluated benefits on the basis of a 100-year period is 1.33 to 1. Using only direct benefits, the ratio would be 1.10 to 1. Of the total estimated project cost, \$71,895,000 is allocated to irrigation; \$750,000 to fish and wildlife and \$362,000 to recreation. Water users would repay an estimated \$13,850,000 or 19% of the irrigation costs plus the annual operation, maintenance and replacement expenses allocated to irrigation (\$298,000). \$58,045,000 allocated to the irrigation function would be repaid from Pick-Sloan Missouri Basin Power revenues available for that purpose during the 50-year repayment period.

Local support for the project is strong. The Nebraska Soil and Water Conservation Commission supports the authorization of the plan of development.

The University of Nebraska Bureau of Business Research under a contract with the Bureau of Reclamation of the U.S. Department of Interior conducted a thorough study of economic impact of irrigated agriculture on the economy of Nebraska. This study indicates \$6.68 of economic activity occurs within the State for every dollar of increased flow attributable to irrigated crop production. Applying the results of this study to the Twin Loups Project shows that irrigation development would result in economic activity totaling \$36 million annually within Nebraska. This important economic impact, both to the farm and business sectors, would provide increased employment and business opportunity for residents of the State.

You will recall that this Project was held up for some time because of a difference of opinion between the downriver people and those within the district in regard to the natural flow of water in the North Loup during the summer months. A solution has been reached, and the bill now states that no natural flow in the North Loup and Calamus Rivers would be diverted for irrigation purposes during the critical dry months of July and August and in some years in September.

You will hear testimony later this morning from Mr. Max Kiburz, General Manager of the Loup River Public Power District of Columbus, Nebraska, on this aspect of the Project.

As the Representative from the District which includes the Twin Loups Project, I completely and wholeheartedly recommend the Committee's approval of H.R. 869. It is a good project—a sound project—and a project which has the approval of the taxpayers in the District.

WEEMS & MANKIN, P.C.,
Ord, Nebr., March 7, 1972.

Senator CARL T. CURTIS,
Senate Office Building,
Washington D.C.

Representative DAVE MARTIN,
House Office Building,
Washington D.C.

GENTLEMEN: Enclosed please find photocopies of thirty-five petitions containing three hundred thirty-five names supporting the Twin Loups Irrigation and Reclamation Project. We will send more petitions at a later date and trust that these signatures will help convince the Congressional subcommittees of the area interest in this project.

We understand fourteen of the sixteen people living in the proposed basin area have signed the petition.

We also enclose photocopies of resolutions passed by the Valley County Board and the Ord Rotary Club this week.

You have our best wishes for the success of this project and we trust you will let us know if there is anything else we may do.

Yours very truly,

J. MARVIN WEEMS,

Natural Resources Committee, Ord Chamber of Commerce.

RESOLUTION—ORD ROTARY CLUB, ORD, NEBR.

By the Ord Rotary Club encouraging the Congress of the United States to enact, fund and implement the Twin Loups irrigation and reclamation project at the earliest possible opportunity.

Whereas Rotary is a world Fellowship of business and professional men who accept the ideal of service, individually and collectively, as the basis for success and happiness in business and community life, and

Whereas the Ord Rotary Club, upon hearing the facts incident to and particularly the need for and costs of the Twin Loups, Irrigation and Reclamation Project, finds that said Project will be of service to mankind generally in that said Project will:

1. Preserve and improve area water levels essential for human consumption, agriculture and industry, and
2. Increase and stabilize farm income to enable Nebraska farmers to conduct economically feasible operations and maintain their basic philosophy that they can and should be self supporting, and
3. Provide new jobs in an economically depressed area, and
4. Lessen outmigration from Nebraska and consequent overcrowding of metropolitan areas already beset with problems of mass crime, housing, education and sanitation, and
5. Conserve and utilize our ecology and natural resources efficiently and wisely, and
6. Relieve the energy crisis by reducing the cost of making general and irrigation water available, and
7. Provide recreation to thousands of Americans.

Now, therefore, be it resolved by the general members of the Ord Rotary Club, meeting in regular session this 6th day of March, 1972, that the Congress of the United States be urged to enact, fund and implement the Twin Loups Irrigation and Reclamation Project at the earliest possible opportunity, and be it further resolved that said Ord Rotary Club wholeheartedly and enthusiastically endorse said project without qualification and deliver a copy hereof to the House and Senate subcommittees on Insular Affairs and all other interested and appropriate bodies as evidence of said endorsement.

Passed and approved at Ord, Nebraska, this 6th day of March, 1972.

WAYNE MILLER,

President, Ord Rotary Club.

Attest:

DUANE E. ARMSTRONG,
Secretary, Ord Rotary Club.

RESOLUTION—VALLEY COUNTY BOARD OF SUPERVISORS

By the Valley County Board of Supervisors encouraging the Congress of the United States to enact, fund and implement the Twin Loups irrigation and reclamation project at the earliest possible opportunity.

Whereas the Twin Loups Irrigation and Reclamation Project will preserve and improve area water levels essential for human consumption, agriculture and industry, and

Whereas said Project will increase and stabilize farm income to enable Nebraska farmers to conduct economically feasible operations and maintain their basic philosophy that they can and should be self supporting, and

Whereas said Project will provide new jobs in an economically depressed area, and

Whereas said Project will lessen outmigration from Nebraska and consequent overcrowding of metropolitan areas already beset with problems of mass crime, housing, education and sanitation, and

Whereas said Project will improve and stabilize area taxpayers' ability to pay existing, substantial and increasing costs of providing essential roads, improvements and other public services, and

Whereas said Project will conserve and utilize our ecology and natural resources efficiently and wisely, and

Whereas said Project will relieve the energy crisis by reducing the cost of making general and irrigation water available, and

Whereas said Project will provide recreation to thousands of Americans.

Now, therefore, be it resolved by the Valley County Board of Supervisors, meeting in regular session this 7th day of March, 1972, that the Congress of the United States be urged to enact, fund and implement the Twin Loups Irrigation and Reclamation Project at the earliest possible opportunity, and be it further resolved that said Board of Supervisors wholeheartedly and enthusiastically endorse said project without qualification and deliver a copy hereof to the House and Senate Subcommittees on Insular Affairs and all other interested and appropriate bodies as evidence of said endorsement.

Passed and approved at Ord, Nebraska this 7th day of March, 1972.

VALLEY COUNTY BOARD OF SUPERVISORS.

PETITION TO THE CONGRESS OF THE UNITED STATES

We, the undersigned, as citizens of the United States who live in the area to be benefited by the Twin Loups Reclamation Project, hereby, enthusiastically request that the House and Senate Interior and Insular Affairs Subcommittee on irrigation recommend immediate authorization and funding of said project, within the year, because it will:

1. Preserve, improve and protect area water levels essential for human consumption, agriculture and industry;

2. Increase and stabilize farm income to enable Nebraska farmers to conduct economically feasible operations and maintain their basic philosophy that they can and should be self supporting;

3. Lessen outmigration from Nebraska and consequent overcrowding of metropolitan areas already beset with problems of mass crime, housing, education and sanitation;

4. Conserve and utilize our ecology and natural resources efficiently and wisely;

5. Relieve the energy crises by reducing the cost of making general and irrigation water available; and

6. Provide recreation to thousands of Americans.

(The above petition was signed by many concerned citizens of Nebraska.)

PETITION

We, the undersigned, land owners and farmers living in the North Loup Project area, believe this project is urgently needed to sustain our way of life. We respectfully request the United States Senate's Committee on Interior and Insular Affairs to act favorably on our North Loup Project.

(The above petition was signed by many concerned citizens of Nebraska.)

STATE OF NEBRASKA

County of Valley, ss.

Donald Wagner, being first duly sworn, deposes and says that he is the circulator of the foregoing petition; that the following persons, to-wit:

Emil L. Dlugosh, Ruth Mae Dlugosh, Bud L. Brickner, Ella E. Brickner, Don Petska, Norma Petska, Anna S. Visek, Glen T. Buckbee, Rosie E. Buckbee, Wilma Johnson, Edmund H. Huffman, Vesta Huffman, Kent Hornickel, Eldon Lange, Bernadine, Lange, Mary Ann Lange, David Lange, Richard Burrows, Phyllis Burrows, Archie H. Mason, Virginia Mason, Willard W. Harkness, Thelma Harkness, Viola M. Hackel, Russell W. Hackel, Charles Hackel, Lois C. Hackel, George Krajnik, Clarole Krajnik, Mrs. Rose Cahill,

whose names appear on said petition personally signed said petition in the presence of affiant; that he believes that each of said signers are farmers and landowners living in the North Loup Project area, and that the affiant stated to every petitioner before he affixed his signature the legal effect and nature of said petition.

DONALD C. WAGNER.

Subscribed and sworn to before me this 11th day of April, 1972.

MICHAEL J. SHAUGHNESSY,
Notary Public.

Senator BURDICK. We have a problem here today, not only with committee personnel, but we have a problem with some of the witnesses who have planes to make and travel connections to make.

Anyone here who has a crisis? All right. We will go in order then. Mr. Lange, director of the Twin Loups Reclamation District, Ord, Nebr.

STATEMENT OF HENRY LANGE, DIRECTOR OF THE TWIN LOUPS RECLAMATION DISTRICT, ORD, NEBR.; ACCOMPANIED BY CYRIL P. SHAUGHNESSY, ST. PAUL, NEBR.

Mr. LANGE. Mr. Chairman, I am Henry Lange, president of the Twin Loups Reclamation District. I have with me Mr. Cyril Shaughnessy, who has a prepared statement.

Mr. SHAUGHNESSY. Mr. Chairman, I am Cyril P. Shaughnessy, representing the Twin Loups Reclamation District. With your permission, Mr. Chairman, I would like to have Mr. Lange introduce at this time our directors here this morning.

Mr. LANGE. Mr. Doug Maiker of Ord, Mr. John Putsriber of Orleans, Dick Spelnick, Don Kildare of Palmer, A. L. Russell of Fullerton, and then, of course, Mr. Schute, who is a former member. These gentlemen. Mr. Senator, eight of our board, were on this board since 1952. They were all farmers in their own right, some of us are reaching retirement age by now. But they have been consistently reelected to this board to get a job done and we are here today to accomplish it.

Senator BURDICK. You introduced these gentlemen and as I hear these speakers, it reminds me of the fight we have for 25 or 30 years to get on the board of the Garrison unit, which is an irrigation project, using this same river, so I am very familiar with the type of dedication and the work these people have done through the years.

Mr. SHAUGHNESSY. Mr. Chairman, much of the testimony you heard this morning is incorporated in my statement, so I am going to be brief.

In Nebraska we have a reclamation law and we also have an irrigation law. So the Twin Loups Reclamation District was organized back in 1954 and in 1958 the irrigation district was organized primarily for the reason, as you know, under the Federal law, our lands must be obligated to repayment contract. Under the Nebraska reclamation law, the lands are not necessarily obligated to the repayment contract, so we organized the irrigation district to accomplish that end. So we anticipate that actually the Twin Loups District will operate the supply works, and the distribution of the drainage

works, using the funds of the two districts, we are able to make our repayments to the Federal Government. I know whereof I speak, because I also represent the Loup Basin Reclamation District, which was constructed back in 1960 and has been in operation since then.

I would like to tell you that over in our district, the points you were discussing—were discussed by previous witnesses, has been a remarkable success in that, in our town of St. Paul, Nebr., just last week I visited one of the local elevators and none of the corn that was raised was delivered by that elevator. It was used in the local area.

We have a situation in our area, in the immediate area of St. Paul, where we had something like 56,000 head of cattle, now we have more than 153,000. In other words, while corn may be in surplus, certainly red meat is in demand, and we are seeking a new era of livestock raising in our community which is just across the road from our North Loup project.

Senator BURDICK. Does this area import feed?

Mr. SHAUGHNESSY. We are just holding our own. We are not creating a surplus, using what we raise on the farms, where the average farmer, who maybe had 100 head of steers going to feed, is now going to do it in an extensive manner.

My father was a banker. I can remember my dad saying to farmers, "do you have sufficient feed this winter to see these cattle through?" That was the problem. Today with adequate supplies of feed, that farmer is going to be able to get the loan from the bank and, in turn, produce livestock and meat for the market.

Senator BURDICK. Where do you get those fine feeders from North Dakota and Montana?

Mr. SHAUGHNESSY. We like to use those, and we raise some up in Sand Hills, Nebr.

In 1965 the evaluation of our Loup Reclamation District was in excess of \$6 million, in our town of St. Paul, which is a town of 2,000 people, the evaluation of St. Paul was a little over \$2 million, and in a matter of 6 years it increased to \$3 million, maybe \$4 million. That just didn't happen. The average man on the street in St. Paul says it is because of the project. This can do the same thing in the counties of Valley, Greeley, and Howard. I could go on quite at length, but I am not going to take any more of your time.

Thank you, Senator, for your time.

Senator BURDICK. Thank you very much, and your full statement will be made a part of the record.

Mr. SHAUGHNESSY. Thank you, Mr. Chairman. I have a statement from Judge William C. Smith, if I could submit that for the record?

Senator BURDICK. It will be received and made a part of the record.

Mr. SHAUGHNESSY. I have a resolution from the Ord City Council.

Senator BURDICK. Without objection that will be received also.

Mr. SHAUGHNESSY. I have a letter from the city of St. Paul and another letter from one of our local banks, also a resolution from the board of Howard County, Nebr., commissioners, and also a reso-

lution from the board of directors of the St. Paul Chamber of Commerce, and I also have a statement as attorney for the Twin Loup Irrigation District.

Senator BURDICK. They will all be received without objection.

Mr. SHAUGHNESSY. Thank you very much.

(The prepared statements of Mr. Shaughnessy follow. The material submitted is in the appendix.)

STATEMENT BY CYRIL P. SHAUGHNESSY, ST. PAUL, NEBR., ATTORNEY FOR
THE TWIN LOUPS IRRIGATION DISTRICT

Thank you, Mr. Chairman, and members of your Committee. My name is Cyril P. Shaughnessy. I am from St. Paul, Nebraska. I represent two districts, the Twin Loups Reclamation District and the Twin Loups Irrigation District, who are the local sponsors of the multipurpose North Loup Division of the Pick-Sloan Missouri Basin Program.

This statement is made in behalf of the Twin Loups Irrigation District. I have already presented a statement for the Twin Loups Reclamation District. This statement will explain to you gentlemen the reasons for the existence of the Twin Loups Irrigation District.

Since the Federal Reclamation Law requires that all irrigable lands of a Federal Reclamation Project be obligated to the repayment contract and because the Nebraska Reclamation law has no provisions for such obligation, it became necessary to form an irrigation district. Accordingly, in 1958 many of the gentlemen appearing before your Committee and others formed The Twin Loups Irrigation District. This district includes only the lands that will receive project service. At an election that year, the proposition to form the irrigation district carried by a two to one majority.

As we have done in the case of the Loup Basin Reclamation District, The Sargent Irrigation District, and The Farwell Irrigation District, the Twin Loups Reclamation and The Twin Loups Irrigation District will contract with the Federal Government for the repayment of our portion of the irrigation, and recreational enhancement of the development. During the late 1950's and early 1960's preliminary negotiations in form of repayment contracts were entered into with the Bureau of Reclamation and the Field Solicitor's Office. Since that time, the repayment expected from the irrigators has increased and we are quite willing to reopen repayment contract negotiations with the estimates presented in the Department of Interior's Reevaluation Statement for the North Loup Division.

Just to the west of our North Loup Division is the Farwell Unit, a part of the Loup Basin Reclamation District. The Farwell Unit has been in operation since 1964 and serves approximately 52,500 acres of irrigable land. The Sargent Unit is also a part of the Loup Basin Reclamation District. This unit serves in excess of 13,500 acres of irrigable land. We have gained valuable experience operating these two units. This experience includes the actual operation of the physical works and working with the Bureau of Reclamation during the transitional period. It is the intention of the Board of Directors of the Twin Loups Reclamation District and the Board of Directors of the Twin Loups Irrigation District to operate the North Loup Project in the same manner that the Loup Basin Reclamation District, the Farwell Irrigation District, and The Sargent Irrigation District are presently being operated.

At the time the Sargent Unit was being constructed, there were 17 farms with irrigation wells. As soon as project water became available, the well irrigators indicated their desire to use the facilities of The Sargent Irrigation District. We believe this speaks well of the quality and service we are capable of offering.

As the attorney for these projects, I am convinced that we are most fortunate to have in the State of Nebraska both the Reclamation District and the Irrigation District. The funds that become available to us through taxes enables the reclamation district to reduce the actual cost of the water service to the farmers receiving such service. Then with the provisions of the irrigation law that makes it possible to levy not only an assessment but a toll charge, the irrigation district can adjust such assessments and toll charges to receive only sufficient monies to pay the actual operation maintenance charges

and whatever charges that may be made in its repayment obligations to the United States.

In closing, let me again reiterate our willingness and desire to enter into the necessary repayment contracts. We strongly believe we have the financial capabilities to make the necessary repayments to the Federal Government for the costs allocated to the Twin Loups Reclamation District and the Twin Loups Irrigation District.

Finally, permit me to express to you my sincere appreciation for the opportunity given to me to present this statement to you today. I am grateful. Should you have any questions regarding this statement, please do not hesitate to call upon me.

STATEMENT OF CYRIL P. SHAUGHNESSY, ST. PAUL, NEBR., ATTORNEY
FOR THE TWIN LOUPS RECLAMATION DISTRICT

Thank you, Mr. Chairman, and members of your Committee. My name is Cyril P. Shaughnessy. I am from St. Paul, Nebraska. I represent the Districts sponsoring the North Loup Division, namely, the Twin Loups Reclamation District and the Twin Loups Irrigation District.

With me here at the table today are Mr. Henry G. Lange, President of the Twin Loups Reclamation District, and Mr. William Schudel, President of the Twin Loups Irrigation District.

In addition to these gentlemen we have other members of the Board of Directors, as well as representatives from the Lower Loup-Platte Association. Mr. Max Kiburz, General Manager of the Loup Power District, and Mr. George Svoboda, Attorney for the City of Fremont, Nebraska, wish to make short statements.

Mr. Chairman, may I ask these gentlemen to stand up and permit Mr. Henry G. Lange to introduce them to the members of your Committee?

Your Committee had a Field Hearing on our development at Ord, Nebraska, July 17, 1970. We believe that hearing was a good one. We wish to take the opportunity at this hearing, only to add additional evidence of the need and support for the development and construction of the North Loup Project. One of the major needs of our area is to better utilize the three natural resources we have available to us—water, land, and people.

The Department of Interior's report to you and testimony before this Committee substantiates the availability of water to accomplish development of almost 53,000 acres of our land. As those of you who are at the Field Hearing saw, the quality of our land in the North Loup and Loup Valleys is excellent and takes well to the application of water.

In fact, the application of water still continues from ground water sources. When members of this Committee saw our area in 1970, we had 47,600 acres of irrigated land producing crops in Valley County, Nebraska. Since that time, records of the State of Nebraska show that an additional 40 wells have been drilled. Thus, the farmers in the area are well aware of the increased production and income they can expect from irrigation agriculture.

The need for feed grain in our area is further substantiated by the fact that in 1960 in the five county area of Greeley, Howard, Merrick, Nance and Valley Counties, Nebraska which are within the boundaries of the Twin Loups Reclamation District, there were approximately 56,600 head of cattle. Production of feed grain caused an increase in 1970 to 143,200 head of cattle. From a recent visit with the manager of one of our local elevators in St. Paul, Nebraska, I learned that in 1971 and to this date, no corn had been shipped from that Elevator by rail nor has any corn been delivered from that Elevator by Truck. In short, the entire volume of corn delivered to that Elevator was sold to the local feeders. This in itself emphasizes the need of increased production of feed grain to supply the ever growing demand of those people engaged in feeding cattle to be sold on the market. We who have seen the irrigation development come into the Loup Valley realize the impact that this has had on the economy in our area. Howard County, Nebraska was one of only three Counties in the entire Loup Basin to gain population in the decade of the sixties. It is my belief that this is directly correlated with development of the Farwell Unit which irrigates over forty thousand acres of land in Howard County. In most of Howard County, it is impossible to get an irrigation well, and so, much of the irrigation development in our County can be attributed to the

Farwell Project. We, in the rural area of America, definitely know from experience that the findings of the 1968 impact study made by the Bureau of Business Research, University of Nebraska are valid. The increase in production by irrigation obviously increases the income to the farmers as well as to the local businessman. It is interesting to note that the valuation of the Loup Basin Reclamation District in Howard County, Nebraska has increased from \$8,805,820.00 in 1965 to \$14,628,000.00 in 1971, a gain of nearly \$6,000,000.00 in valuation. The valuation for the City of St. Paul, Nebraska in 1965 was \$2,680,845.00. In 1971, it was \$3,787,405.00. It can be noted that there has been an increase in valuation in excess of \$1,000,000.00 in six years, and that St. Paul has a population of only two thousand people. Many new homes have been built in the St. Paul area in this period. In the past five years many other improvements have been made, such as paved streets, storm sewers, and electric system improvements. I am convinced that these improvements would not have been made had it not been for the tremendous irrigation development undertaken by the Loup Basin Reclamation District and The Farwell Irrigation District.

Our most precious resource in rural Nebraska is our people. Irrigation development has proven time and again, that it provides the opportunity to increase the family income for those who are underemployed. Yes, we have some unemployed people too, whom we can help. So, we are particularly interested in fuller employment for the people of our area. With full employment our people will stay and work in this wonderful part of rural America and not leave to compete for work in the crowded metropolitan areas. The increased production from irrigation development will assure an opportunity for these people to be gainfully employed.

In the Farwell Unit, which is almost adjacent to the North Loup Project, those farmers with an assured water supply had the best crop year in the memory of the local farmers. Here cattle were in the feed lots, and silos were being filled. New buildings have been and are being erected, land is being leveled, and new equipment is replacing the old machinery. Here is where the real values of irrigation to the Nation is exemplified.

The needs of the irrigator are purchased from all over the Nation. Silos and grain bins are manufactured in Illinois and Missouri; tractors and trucks come from Wisconsin, Illinois, and Michigan; farm equipment is supplied from a half dozen other states; seed from Iowa; fertilizer from Kansas, Louisiana and Georgia. All of these items are shipped by rail or truck. It is evident that these purchases provide employment and income to thousands of workers far removed from the Farwell Unit. I have every reason to believe the same good results will come about when the North Loup Project becomes a reality.

Another need of our area is the increased opportunity for enjoyment of recreation and the fish and wildlife resources. Calamus and Davis Creek Reservoirs would provide the facilities for enhancement of these activities. Providing and servicing these activities will result in additional employment opportunities.

The Calamus River is sometimes called the "steadiest-flowing" stream in the world. Right now, all of the river and land adjoining it above Burwell, Nebraska is in private ownership. So, unless the private citizen has permission to use a rancher's land, this water-based recreation is not available to him. With the construction and development of Calamus Reservoir, public access will be provided to all.

The Twin Loups Reclamation District has provided the Bureau of Reclamation with a letter of intent to cost-share and operate the recreation and fish and wildlife activities of Calamus and Davis Creek Reservoirs in accordance with the Federal Water Project Recreation Act. We consider the opportunity to operate and maintain recreation and fish and wildlife activities of the North Loup development, a great step forward in local participation. We believe that our farmer-city relationship can only improve with such facilities.

Several community-service clubs and municipal and county Government officials have asked us if they can participate in the operation and maintenance of these fish and wildlife and recreational activities. The interest for the development in the area is extremely high.

At the July 1970 Field Hearings, Mr. Lange reported to you that we had signatures of about 65 percent of the water users of our Twin Loups Irrigation District who were then, and still are, interested in receiving project water supply. In addition to that, the Directors have circulated petitions in the last

month that indicate the interest of the signers in the development. This covers the area from Fullerton, Nebraska up to and beyond Burwell, Nebraska. We would like to present these petitions to you for the record. You will observe from the number of persons signing the petitions the high interest in the early development and construction of the North Loup Project.

As early as 1954, we formed our Reclamation District, the third in Nebraska. Before such a district can finance its operations, it must have the permission of the voters of the District to make the mill levy. This vote carried 750 to 300, two and one-half to one.

Recently a petition was circulated among the land owners and residents of the area of the proposed Calamus Dam and Reservoir. This petition indicates that the nineteen signers enthusiastically request the authorization and funding of the Twin Loups Project. We feel it is significant that those most directly affected by the construction of the dam and reservoir are in favor of our project. Few of these people will receive direct benefits of project water, but they are acutely aware of the need of a good water supply for this part of Nebraska.

We fully recognize that farmers of our district have made progress in the last 14 years. We realize that some of the owners who signed our petition for district formation no longer are active and others have moved. We also know that proper resource development should include as little duplication of facilities and services as possible. For these reasons, we will ask the Bureau of Reclamation to review their land classification criteria during the pre-construction period.

Letters you received as a result of your Field Hearing in 1970 appear in the printed hearing record. In addition to that, we understand that you have received letters indicating additional local support. We request that these be made a part of the Committee files.

We have strong and solid support from our Governor, Legislature and independent State agencies for the North Loup Division. In June of 1971, the Nebraska Soil and Water Conservation Commission adopted and published the *Framework Study of the Nebraska State Water Plan*. That plan includes as one of its recommendations, construction and development of the North Loup Division. On February 22, 1972, the Nebraska Legislature adopted Resolutions No. 42 adopting and endorsing the *Framework Study of the Nebraska State Water Plan*, thus making it an official document of the State of Nebraska.

The Nebraska Unicameral has also adopted two resolutions, specifically recommending construction and development of the North Loup Division. These were Resolution No. 51 of April 1971 and Resolution No. 44 of February 1972.

We, of the Twin Loups Reclamation District, and supporters for the North Loup development are in agreement with the criteria for operation of our project as outlined in the Department of Interior's Reevaluation Statement. We also are agreeable with the conditions as set forth in Section 5 of the proposed bill submitted by the Department of the Interior for authorization of the North Loup Division. We feel this is an equitable arrangement with our friends downriver. We are quite willing to have the necessary language placed in the Nebraska Department of Water Resources approval of our water rights.

We, and several other groups in our area, have reviewed the Department's draft of the environmental statement for the North Loup Division. Although some people have indicated a concern with the potential for increase in the total dissolved solids in the North Loup, Loup, and Platte Rivers, the water quality will remain well within the criteria established by the State and Federal standards. As indicated by several of the county commissioners in our area who commented on the draft environmental statement, we believe that the beneficial effects to human environment far outweigh any adverse effects.

This concludes my statement. Mr. Henry Lange, Mr. William Schudel and I are available to answer questions to the best of our abilities.

STATEMENT OF LARRY C. HOLCOMB, CHAIRMAN, QUALITY ENVIRONMENT COUNCIL, OMAHA, NEBR.

Senator BURDICK. Larry C. Holcomb.

Mr. HOLCOMB. Mr. Chairman, my name is Larry Holcomb, chairman of the Quality Environment Council of Nebraska. I have sub-

mitted 15 pages of testimony, single spaced, and I would like that inserted in the record.

Senator BURDICK. It will be received.

Mr. HOLCOMB. The Quality Environment Council is made up of 400 people directly as dues-paying members, and in addition to that we have some 5,000 people in affiliated organizations interested in the quality of the environment of the State, such as the Douglas-Washington County Dairy Herd Improvement Association.

We are not all urban dealers, there are farmers involved. On the board of directors we have farmers, farm managers, chemists, biologists, housewives, teachers, and students, and together we have put this statement together which we feel represents a little more some of the objections of the citizens of Nebraska.

We feel many costs were not put in the cost-benefit ratio. For instance, 18 different ranches will lose their windbreaks and we calculate they are worth at least a minimum of \$77,000 per annum. It will take 100 years to replace the kind of windbreaks associated with cattle in that area, that comes to \$1,350,000 just for one item.

These people have a free flowing Calamus River there that flows all winter and all summer long and which is ice-free, as well as Grassy Creek. We feel that the cattle production is more valuable there because of this free flowing water. Over this 100-year period—we are going to calculate our economic costs and benefits the same way the DOR does—over a 100-year period we feel they are losing \$5 million worth in a 100-year period of ice-free water source for those cattle throughout the winter.

Another important thing these people are losing, is the alfalfa and hay meadows adjacent to the river. These cow-calf units are dependent on the subirrigation units down the meadows, without those we calculated \$130 million is lost to the ranchers directly involved. We couldn't help agree very vociferously about their glutting the corn market, we know if you glut it today, 1,500,000 bushels in surplus, 5,500,000 bushels, we feel at a minimum over 100 years, the average figure cost to the United States, not just to the State of Nebraska, but to the entire Nation, at least \$200 million at a minimum.

When you start putting these kinds of costs into the cost-benefit ratio, we feel that the cost-benefit ratio becomes completely unsubstantiated.

For example, people below the reservoir, down the Calamus, the North Loup, the Loup River, and the Platte River, do stand to lose benefits of some of the water going down the Calamus, especially during the summer months. I realize that the DOR claims they are going to release water. If they do release the amount of inflow that comes under that, it is going to decrease the amount of recreation of the reservoir. If they do release the water on down to the city of Omaha, and the city of Fremont and the city of Lincoln, can get adequate water supplies from these wells, there will be no recreational benefits left in that reservoir.

Senator BURDICK. The concept of the reservoir is that it holds the excess water.

Mr. HOLCOMB. I know, that is true, but there will be no excess during the summer months. If you use the inflow into the reservoir

and bypass it, there is going to be a drop in the reservoir. The level may drop as much as 10 or 15 feet in one summer season depending upon the precipitation and the inflow and the amount of the evaporator grade from the surplus area. In addition, feeder cattle areas are going to be depleted and we calculate a total loss there of over \$34 million in the ability of feeder cattle. There will be little if any negative effects on wildlife benefit. When you inundate an area, you remove the deer, the pheasants, the quail, the sharptail grouse, or prairie chickens that might be there too. They will lose deer in the irrigation canals to the tune of probably 100 a year, and displace at least an additional 150 deer from the inundated reservoir. If you lose 250 deer a year as far as hunting benefits, you are losing, if you again put all of the indirect cost in, you are losing 500 a year per deer, I think this should be in the benefit ratio. You are losing 13 miles of some of the finest canoeable rivers in the State.

I asked some people the other day how much value do they place on the free flowing canoeable stream, my cost benefit built into this is \$1 million a mile, and that was the lowest that anybody gave me.

One man says \$3 million, another man says you couldn't touch it. We will put \$1 million of loss of some of the finest recreational canoeable streams in the State.

Drought years, I would like to see the records documented. Certainly there are drought years, there are years where there is a shortage of water supply, but there is no area within the State of Nebraska that has a better water supply, underground reservoir water supply, than the area we are talking about, fed from all of this huge ground reservoir draining southerly toward the Platte River and is currently tapped by people using irrigation in the area to be demolished by the canals and lateral systems of this North Loup Project.

The interest rates that the Commission says does not affect the project, do instead affect the project. The Office of Management and Budget did use the $3\frac{1}{4}$ percent, and they used it for feasible purposes, I visited with them. They did it as an administration decision alone, We feel that the $5\frac{3}{8}$ should be used, but the citizens of this country are expected to pay the major cost of this project, some 50 or 60 percent of the project, through cost of power. Then they should have something to say about the interest rates that are charged to the project for feasibility purposes.

There are claims of a 12-foot drop in a well. We would like to see how many wells drop that much in this area to be affected for irrigation purposes. We feel there feel there is very little if any drop because of the magnificent water supply in the area.

We feel there is not underemployment of the civilian population. The reason why people have moved away from this area is simply a result of technological improvement in farming methods. When people can use fine tractors, farm machinery to farm with, they can do a lot more farming per unit, and you are going to have a loss in need for numbers of people for that need.

The Commissioner said there would not be a loss of the heron rookery, great blue heron rookeries are very uncommon. This one

will be lost. If you inundate the area, you are going to irrigate those cottonwood trees there so much that the trees will die.

There will be drops in water levels during the summer months, and the people using the reservoir there will affect the heron rookery with their motorboat activities. We feel there was indeed better local support drummed up for the 1970 hearings held in Oregon. Since then the citizenry of the United States has become better informed, and I think our testimony here does represent a lot of people, not just a handful of kookie ecologists.

As I told you before there are people that are farmers, people that are directly affected in this, biologists, schoolteachers, that want a quality environment and we don't want to pay this type of cost for a project that is really not feasible.

Senator BURDICK. Could you list the organizations affiliated with you?

Mr. HOLCOMB. Yes, the Jewish Women's Federation, for instance, they have 1,200 people in it. The Young Matrons of Omaha, the Junior League of Omaha, the several young high school groups, three or four groups of 40 or 50 each, and then there is a young businessmen's organization in Kearney, Nebr., the J.C.

Senator BURDICK. Are the J.C's against this?

Mr. HOLCOMB. Yes, they would be against this as I have demonstrated the cost-benefit ratios involved. When I come up with a total cost-benefit ratio here. I come out with a figure of only 65 cents worth of benefits from \$1 spent. I feel there are many questionable things that we have not been able to put into it, because the Bureau of Reclamation did not produce the figures. For instance, there are many gravesites that are going to have to be moved, they are not calculated in the cost of this project, several of the early settlers and ranchers in this area are buried in this site. There may be Indian burial sites in the area, too. We know that there are some endangered species also in that area, I think that in summary, then, if you take all of the economic considerations, if you take all of the environmental considerations and put a dollar value on them, as they should be, that this project does not hold water. And as taxpayers in the United States and the State of Nebraska, we feel that the project has been pushed by special interest groups or those misinformed, not necessarily ignorant, but at least misinformed about what the benefits really are.

I thank you very much for being able to testify.

Senator BURDICK. You probably heard the testimony given earlier this morning, and I think I made it quite clear about what the committee has done about surplus crops, and we in all cases put in the 10-year limitation because of the surpluses and, perhaps, 10 years hence the population will catch up to the supply and at least we will know more about it by that time.

Now, you talk about these trees, these windbreaks, and the attitude of the farmers, and so forth. The farmers that own these windbreaks, are they raising objections?

Mr. HOLCOMB. They sure have. Senator Curtis said that 14 to 18 people have agreed to that project. Those figures are not correct.

For one thing, there are not eight families living there right now, and there would be a majority of them definitely opposed to the project.

Senator BURDICK. According to the report here we find that the Calamus Dam and Reservoir takes 8,240 acres of land. I don't suppose that is all in crop?

Mr. HOLCOMB. No, it is going to take much more than that. There will be many more acres inundated because there will be about that much under water, and in addition to that there will be considerable easements.

One thing that will happen with this canal and laterals easements, that will take up another few thousand acres. I went out and looked at this about 3 weeks ago. They are rectangular fields, 40, 50 acres a field, that have a canal going across them in diagonal fashion; you can imagine what that is going to do with a farming operation set up with central pivot irrigation.

Senator BURDICK. I drove mules in an irrigation farm in Sydney, Mont., years and years ago, and it is easy to cross a ditch going diagonally as it is crosswise.

Mr. HOLCOMB. I have the actual numbers in my statement.

Senator BURDICK. Where would I get the exact acreage officially, if that is not right?

Mr. HOLCOMB. The reevaluation statement of February 1971 gives a total of just about 10,000 acres. They have 9,735 acres in the Calamus Reservoir, another 200 acres in easement fee for 9,735, and the easement of 200.

Senator BURDICK. That is just about 10,000 acres?

Mr. HOLCOMB. Yes. About 10,000 acres now and the canals and laterals, I feel will take out 4,142 acres. For the water disposal units another 920 acres. For the subsurface drainage, another 464. So with the total fee and easements, you have just about 19,500 acres.

Senator BURDICK. But you are upgrading three times as much ground.

Mr. HOLCOMB. Except, sir, there are probably at least one-third, and perhaps as much as one-half of this area already either being irrigated by central pivot irrigation or ready to put it in this year.

Senator BURDICK. Are you referring to central pivot irrigation as irrigation from wells?

Mr. HOLCOMB. Yes.

Senator BURDICK. I thought you disputed the fact a while ago that the water level would drop?

Mr. HOLCOMB. I did.

Senator BURDICK. The water level has not dropped?

Mr. HOLCOMB. The water level hasn't dropped and these people are using central pivotal irrigation. In the Sand Hill areas we get a complete recharge from fall and through the winter months. If you took the level of the wells directly after the pumping season, it would definitely be lower. This recharges through the Sand Hills, one of the greatest reservoirs in the world.

Senator BURDICK. You mean the areas in this so-called project area now are engaged in irrigation?

Mr. HOLCOMB. Yes, many of them. I think many will testify to it that they are irrigating right now. If you took those acreages out of this project I doubt if there would be more than 30,000 acres left.

Senator BURDICK. How do these farmers feel irrigating with wells?

Mr. HOLCOMB. They are against it. There are documented remarks and situations provided by these people.

Senator BURDICK. You mean there is a division of opinion in this area?

Mr. HOLCOMB. Absolutely.

Senator BURDICK. Is it a minority opinion or how is it divided?

Mr. HOLCOMB. I don't know, I think the gentlemen who follow me will give you the exact numbers. It represents many acres of land.

Senator BURDICK. I understood when we opened this testimony, it had very much unified support.

Mr. HOLCOMB. That is not true.

Senator BURDICK. Thank you, sir.

Mr. HOLCOMB. Thank you.

(The prepared statement of Mr. Holcomb follows:)

STATEMENT OF LARRY C. HOLCOMB,
CHAIRMAN, QUALITY ENVIRONMENT
COUNCIL, OMAHA, NEBRASKA

INTRODUCTION

The North Loup Division Project consists of storage of water and diversion of water for irrigation on the Calamus and North Loup Rivers in Central Nebraska. The Calamus is a spring fed river flowing into the North Loup. The North Loup, Middle Loup and South Loup Rivers unite to form the Loup River which flows into the Platte River near Columbus, Nebraska. Ultimately, any reservoir constructed on the Calamus or Davis Creek (with the connected 274 miles of canals and laterals for irrigation) will reduce the quantity and quality of water flowing in the North Loup, Loup, Platte, Missouri and Mississippi Rivers and the Gulf of Mexico.

This document will serve to show cause why the North Loup Division Project is environmentally, economically and sociologically unsound. As a result, according to law established by the National Environmental Policy Act of 1969, the project should not be authorized.

The following contentions are given herewith:

Environmental Impact Statement Insufficient

1. First and foremost, the Environmental Impact and cost-benefit ratios have not been shown in the Environmental Impact Statements and thus, under regulation imposed by the 1969 National Environmental Policy Act, the project has not been sufficiently evaluated. Under Section 102 (C) of the Act, the following appear:

"(C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on—

- (i) the environmental impact of the proposed action,
- (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,
- (iii) alternatives to the proposed action,
- (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and
- (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statement and the comments and views of the appropriate Federal, State, and local agencies, which are authorized to develop and enforce environmental standards shall be made available to the President, the Council on Environmental Quality and to the public as provided by section 552 of title 5, United States Code, and shall accompany the proposal through the existing agency review processes;"

When following these criteria by law, the citizens of the United States are protected. However, approval by the Office of Management and Budget and Department of the Interior have in fact, violated these provisions of the National Environmental Policy Act since an adequate Impact Statement has not been provided to the Council on Environmental Quality. Furthermore, the Congress or its Subcommittees would be violating the intent of NEPA in considering authorization of the project before the complete Statement is provided, and the complete costs and benefits of the project have been tabulated.

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2. Final NEPA Statement Incomplete

The draft Environmental Impact Statement provided to the Quality Environment Council and other agencies was provided to the Council on Environmental Quality (CEQ) on March 25, 1971, but was not sent to the Quality Environment Council until February 14, 1972. A statement from QEC has been requested in the office of the Bureau of Reclamation by March 15, 1972.

Much of the environmental information required to properly evaluate the North Loup Division Project is not available, and thus we reserve the right to further evaluation of the cost-benefit ratio until such time as the BOR makes available the necessary information. As an example, the unique plants and animals to be displaced by the reservoir have not been enumerated. Thus, a completely accurate cost cannot be assigned until such values are given.

3. Loss of Family Ranch Operations

Thirteen family ranch operations and 47 citizens will be disrupted by the Calamus Reservoir. In addition, there are five sets of buildings and windbreaks unoccupied. The homes, machine sheds, livestock barns and other buildings associated with these ranch operations will be destroyed. There is no way for these individuals to replace what they currently have on the ranches which include a total of 50,172 acres.

These ranches currently have 2,022 beef cows, 2,163 yearlings and about 100 horses, for a total of 4,285 head on the 50,172 acres. This demonstrates a value of just under 12 acres for each animal.

If they are forced up onto the Sandhills, there will be lost:

- a. ranch buildings
- b. windbreaks
- c. ice-free water sources
- d. hay meadows and alfalfa for growing winter feed for the livestock
- e. the home that many of these people or their children have known for all of their lives
- f. lower value of their remaining property if they sell to adjacent ranches

The economic impact of the project should include a dollar value loss in terms of these special categories.

Windbreaks--\$75,000 per ranch--18 ranches \$ 1,350,000

Ice-free water sources--\$10/head/year--about 5,300 head; for 100 years 5,300,000

2,000 acres of hay meadow or alfalfa. An added value of \$200-\$250 per acre, directly. However, the loss of these hay meadows is far more important than this. It means that instead of a rancher being able to have 12-15 acres per cow, he will need 20-23 acres. This means that if there are 50,000 acres of ranch land, instead of being able to run 4,167 cattle (at 12 acres per head) the rancher would only be able to run 2,500 cattle (at 20 acres per head). This represents a loss of approximately 1,650 calves each year or about \$297,000 per year, even if the ranchers remain in operation (figured for 1,650 calves at 400 lbs. each and 45.00/hundred lbs.). Even at today's prices that is a loss of at least

\$297,000 x 100 years or 29,700,000

*Some of these ranches have yearlings rather than cow-calf operations. The figures presented are still indicative of the losses involved.

The sociological and psychological effect of moving from a home and viewing the destruction of that home and property--13 homes with 47 people at \$200,000/home

2,600,000

The lower property value of the acres remaining after
buildings and hay producing acres are gone
\$20/acre and 50,000 acres

1,000,000

Total additional losses—not represented in the current
cost—benefit ratios in the inundated ranches. These
losses are to the property owners.

\$ 39,950,000

4. Loss of Schoolhouse

A small schoolhouse will be covered with water. We assume that the BOR intends to replace this school. However, the children attending this school from the ranches nearby will have to travel further to reach school or will need to be transported to Burwell or another town. These costs will be in addition to construction and will be costs supported by the ranchers for each year.

5. Effects on the Human Population

The Environmental Impact Statement developed by the Bureau of Reclamation, states there has been a reduction of population in the area from 36,300 in 1940 to 24,500 in 1970. We would state very emphatically that this is not what the BOR refers to as "underemployment of the civilian labor force". The BOR has not defined the area from which they are taking their population figures.

The basic reason why population in this region has declined somewhat, is because of an increasing ability through technological advances for fewer people to farm or ranch more acres. Transportation is faster and agricultural machinery is more efficient in 1972 than in 1940. Thus, a family can farm 300 - 600 acres today, whereas, in 1940 few farmers utilized more than 200 acres.

By simply providing another source of water, the population is not going to increase. As we will discuss more thoroughly later in this document, perhaps as many as one-third of the farmers in the reclamation district have already provided their own source of water through central - pivot irrigation. The benefits to the economy will be for those who make pipe for irrigation. However, industries are already manufacturing central-pivot irrigation systems. Others to benefit will be the large farm equipment manufacturers with their base of operations outside of Nebraska. Instead of drawing human population back to this region of Nebraska, it will be more likely to draw some of the young people to the industries outside of Nebraska.

6. Effects of the North Loup Division Threat on Current Development

The ranchers to be directly removed from their base operations and homes would have made further improvements and invested more in their operations had they not been faced with the possibility of losing their ranches. No one can measure the entire true cost of the hardship this has placed on the residents of the areas proposed for inundation. It is time to realize what such projects do to people and to remove this threat permanently.

7. The Current Irrigation in North Loup Division

The Mira Valley and Scotia areas of the Reclamation District are areas that have the greatest amounts of land currently under irrigation by central-pivot systems. Many new central-pivot irrigation systems are planned for this area in the next two years. These are preferred by the majority of farmers as they do not require the expense of leveling land or the hardships of working around irrigation canals and laterals with modern farm equipment.

8. Farmers Opposed to Project

In the Mira Valley and Scotia regions of the Reclamation district, the farmers are being censused as to whether they want the project. As of February 27, 1972, 12 of each 13 farmers contacted were against the North Loup Project. This 12:1 ratio of farmers opposing the project represented a ratio of 32 quarter-sections versus one quarter section of land. This census is being continued and the results will be presented to the Senate and House Subcommittees.

9. Farmers Opposition Based on Good Management

One major reason the farmers oppose the project is that they already have a more

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efficient means of providing their water for irrigation through the use of central-pivot systems. They realize through reports from the studies made on ground water supplies, that the majority of lands within the confines of the North Loup project have abundant ground water to supply their needs if they use it wisely.

10. Farmers Land Disrupted

Many farmers oppose the North Loup project because they have invested in their own irrigation system. Some of these individuals will have their lands disrupted by the canals and laterals planned for the project. Many acreages will be essentially worthless after the project. For an example, an irrigation canal is planned that will run diagonally across a rectangular-shaped 56 acre field. This will make twice as many rows to cultivate. There will be many acres lost to turn-around space. More time, effort and fuels will be needed to farm these types of fields.

11. Continue a Free Enterprise--Do Not Suppress Corn Prices

Most farmers in the regions to be effected by the North Loup project, wish to develop their own free enterprise system of raising crops and feeding cattle. They see no justification in spending millions of dollars of government funds to provide water for the few remaining acres that are not already under irrigation.

We support the farmers who are providing their own systems and managing their own farms. If through raising a surplus of corn, they cause corn prices to drop, they will be living within a situation they have created and they will have the opportunity to change farming practices and to adjust management priorities. However, it is very objectionable to provide the opportunities for glutting a market through government subsidization. As an example, through Bureau of Reclamation projects, there may already be at least 500,000 acres more in corn acreage because of irrigation or stream channelization projects. If on these acres, there were produced an average of 100 bushels per acre, there would be perhaps an additional 50 million bushels of corn produced by agriculture. If this dropped the total value of some 4 billion bushels of corn by only \$.05 per bushel, there would be a distinct loss of dollars to agriculture. The difference could be:

4,000,000,000 bushels at \$1.05	\$4,200,000,000
4,050,000,000 bushels at \$1.00	4,050,000,000
	<hr/> \$ 150,000,000

This 150 million dollar difference is a loss not just to the farmers of Nebraska, but to the entire nation. As pork barrel projects proliferate, the farmers will be the citizens in the U.S. to suffer first. The Bureau of Reclamation is one of the greatest offenders in promoting these types of projects that appear at first glance to be profitable, at least to a few farmers. However, National objectives to raise the income and living standards of rural America will only be hindered by such projects as the North Loup Division.

Therefore, as an economic cost to each project there should be added the cost to the entire nations agricultural economy as a result of using federal funds to glut the corn market. We assume there are not more than 25,000 acres of land in the North Loup Division that remain to be irrigated or indeed are irrigable acres. If these 25,000 acres were to produce an additional 100 bushels per acre, there would be 2,500,000 additional bushels. If these bushels helped to drop the corn price by only \$.05 per bushel, this would be a loss of \$125,000 per year assessed back against these landowners. On an additional 25,000 acres remaining in the North Loup Division there would be another \$125,000 per year loss; a total loss just in the North Loup Division of \$250,000 per year. This is assuming only a \$.05 drop in corn. In the fall of 1971, there were farmers selling corn for \$.80 to \$.85 per bushel rather than the minimum of a \$1.00 to \$1.10 they would have been getting, had the market not been so overloaded.

In summary on this point, there should be added a cost of at least \$1,000,000 per year for the effect on the Nebraska market and at least \$1,000,000 per year as an effect on the National market.

Total cost--\$2,000,000 per year

12. Increased Economic Activity Not Substantiated

The Environmental Impact Statement provided by the Bureau of Reclamation claims:

" Stabilized and increased agricultural production from the irrigation of 52,600 acres of cropland would provide the impetus for important social and economic opportunities. A study developed by the University of Nebraska indicates \$6.68 of economic activity occurs within the state of Nebraska for each dollar of increased value attributable to irrigated crop production.....an annual impact of \$36 million to Nebraska business."

These values of \$6.68 do not take into account the points raised thus far, nor do they consider the losses in terms of environmental degradation of water and air or some of the sociological impacts of the dollar exchange they report in their study. Until these values can be updated, using all criteria, they should be disallowed in the cost-benefit evaluation of the North Loup Division. One good example of the bad side effects not considered by the University of Nebraska is the over-production of corn, resulting in a reduction in price as shown under item 9.

13. Recreational Benefits Claimed, Not Substantiated

Recreational benefits are claimed to be increased by 50,000 visitor days of public outdoor recreation annually. These figures are at least double what the actual figure would be. If the reservoir were within 30-40 miles of Omaha or Lincoln, the figures would probably be justified. However, one needs only to visit Sherman Reservoir, Pibel Lake, Milburn Dam, Merritt Reservoir or Box Butte Reservoir to understand the lack of visitors to reservoirs or lakes that are located in excess of one hundred miles from major population centers or away from routes of transportation. Unless guarantees can be made about no withdrawals of water from the reservoirs during the summer months, the value of the recreational grounds cannot be defended. As water is withdrawn, it makes boating, swimming and other recreational activities more difficult and leaves small pools of water in which occur algal blooms or mosquito breeding ponds.

On the other hand, if water is not withdrawn from the reservoirs, the flow of water downstream in the Calamus, North Loup, Loup and Platte Rivers will be reduced, thus affecting environmental quality and economic stability of agriculture dependent on sub-irrigated hay meadows.

14. Hunting and Fishing Benefits Reduced

Public hunting and fishing benefits are claimed at an additional 19,070 days annually. These figures are entirely false for the following reasons:

A. Waterfowl hunting is currently better than it will be after the reservoirs are constructed. Waterfowl prefer smaller, more protected water as resting or feeding stops. The Calamus provides open water all year long. There are several small spring-fed ponds occurring near the edge of the Calamus. Furthermore, Gracie Creek provides additional open water near the Calamus. On February 22, 1972, even though most waterfowl were migrating, there were Canada Geese, Mallards, Lesser Scaup and Buffleheads in the River and ponds adjacent to it. This section of the River, the ponds and a portion of Gracie Creek would be inundated by the Reservoir.

B. Mule Deer prefer mixed habitat consisting of grazing lands and shelter in small clumps of scattered trees. This type of habitat exists now in the valley to be inundated. However, it does not exist in nearly as favorable a circumstance in the Sandhills, nor will it exist if the North Loup Project is authorized. There will be reduced numbers of deer available for hunting because of the inundation of thousands of acres of habitat. There will be a loss of at least 8,300 acres of land surface if the reservoirs and canals are completed. There is at least one deer occupying every 50 acres in this type of habitat. There will be a loss of 166 deer per year by simply removing their excellent habitat. The economic loss annually will be approximately 166 times \$500 per deer or \$83,000 lost annually.

C. In addition to the deer displaced by water, there will be approximately 100 additional deer that will die in the 274 miles of irrigation canals and laterals. This represents an additional loss of \$50,000 annually to the State of Nebraska.

D. Other game birds such as pheasants and grouse or mammals such as rabbits and squirrels prefer mixed habitat such as that existing now. By inundating the valleys, there will be a loss of hundreds of pheasants, squirrels and rabbits and many grouse. Their value would represent at least \$1.00 per acre for 8,300 acres for a further loss of \$8,300 annually to the State of Nebraska.

It is obvious that the Bureau of Reclamation or their consultants do not understand wildlife economics. Their claim of hunting benefits are not only wrong, but quite the opposite is true. There will be overall loss of hunting benefits and an economic and recreational loss to the citizens of Nebraska.

E. Good stream fishing will be destroyed in the Calamus and in Gracie Creek by direct inundation. Through release of reservoir water for irrigation in the summer months and then refilling through the winter and spring months, fish numbers and fish reproduction will be effected. These difficulties have already been encountered in many large reservoirs.

In addition to the direct effects of the impoundment, as there is withdrawal from the rivers to refill reservoirs and as there is high loss of water through evaporation from the surface of the reservoirs and from the irrigation canals and ditches, the Calamus, North Loup, Loup, Platte and Missouri Rivers will be effected. River temperatures and flow rates are very important to maintenance of fish life throughout the entire year.

The Bureau of Reclamation has not sufficiently discussed the effects of drawdown of the reservoir, nor have they decided what amounts of water releases they will guarantee below the reservoir. Until such time as these questions are sufficiently answered, there should be absolutely no dollar value allowed for increased fishing benefits as a result of the North Loup Division.

15. Natural and Human Resources Currently Used Wisely

An "inefficient use of natural and human resources" is claimed by the BOR if the water and related land resources are left in their present state. These sound like the same arguments used by the proponents of the Aswan Dam on the Nile River. The Aswan Dam held back nutrients and essential minerals that had been flowing to the Mediterranean Sea. As a result, the Sardines perished because nutrients were not available to provide food for the small plants and animals which the Sardines fed upon.

An annual multi-million dollar Sardine fishery was lost and thousands of people are without work.

We have already pointed out many of the faults of the North Loup Project and will show additional severe costs. However, there may be many costs to the people of Nebraska and to our nation that are not readily obvious.

16. Tax Base Losses to Counties

Tax Base Losses will occur primarily to Loup and Valley Counties with a smaller loss to Greeley County. This land, property and building tax loss will add a greater burden to those persons owning acreages outside of the project area.

For Loup County there will be a loss of assessed valuation as follows:

\$ 40,765	Bldgs.
418,883	Land
294,765	Personal Property

Total \$754,413

At an assessment of about \$70 per thousand, Loup Co. will lose about \$52,800 in taxes per year that other landowners will need to make up.

For Valley County, there will be a loss of at least \$171,785 of assessed land value.

At an assessment of about \$70 per thousand there would be a loss of at least \$12,040 per year in taxes to be made up by the remainder of the county residents.

Total Loss of Taxes - \$70,840 per year (minimum)

17. Long Term Land Values Not Considered

Land values are currently running between \$55 - \$200 per acre in the areas to be inundated by the reservoirs. Areas to be affected by many of the irrigation canals and laterals will be more costly, as they are in farming country. The values are going to be far greater in years to come as our population grows and as the relative value becomes greater for land.

18. Beaver Economic Effects Not Considered

Beaver are numerous in the rivers and streams in the North Loup project area. They will move into irrigation canals and laterals and will plug up such waterways with diggings and small dams. The BOR has not included the cost of upkeep that will be necessary as a result of the Beaver activity. The additional cost will amount to at least \$10 per mile per year for the 274 miles. Total cost - \$2,740 annually.

19. Economic Loss in Cattle Production

The Reservoirs would take out of cattle production, at least 12,555 acres of land altogether. This includes the 6,300 acres of water surface and the recreational and other easements associated with the Reservoirs. These 12,555 acres of land currently provide range and winter feed for at least 1,046 cattle each year. These cattle will produce some 1,025 or more calves that will be sold for feeder stock at around 400 lbs. each. These calves are currently selling for about 45.00/hundred lbs. or \$180.00/each. Ten hundred and twenty-five calves would then be selling for about \$184,500 each year. A loss over 100 years of at least - \$18,450,000.

The land to be inundated by the reservoirs is primarily usable only for grazing or hay production. Nebraska needs areas in the state to produce feeder cattle for those wishing to raise corn and feed out these cattle. Further, these ranchers receive no subsidies from the federal government for crop production or for keeping their acres out of production.

In addition to the cattle that can be raised directly on the inundated portion of Calamus Valley and Davis Creek, there are at least an additional 800 calves dependent on the ranch operations that are headquartered on the Calamus. These headquarters are in protected trees for over-wintering cattle and provide water that is not frozen all winter long.

Below the dam on the Calamus and North Loup, there are many thousands of acres of wet hay meadow or alfalfa that are dependent on the water sources from the rivers through subirrigation. Although, we must depend on the Bureau of Reclamation for a final assessment of these acres, we believe that the reduced flow will adversely affect at least 20,000 acres downstream. The losses to be expected will probably range upward from \$1,000,000 per year as these acreages also effect over-wintering feed for cattle raised on adjacent uplands.

Ranchers dependent upon hay for over-wintering will need to purchase hay from outside sources as there is always a critical balance between summer pasture and hay meadow or alfalfa in ranching operations.

20. Other Lands Out of Production

There will be a total of 274 miles of irrigation canals, their laterals and 10 pumping stations. There will be a loss to agriculture of an average of 25 acres of cropland or cattle grazing land per mile of canal on the average. That gives a total of (25 x 274) or an additional loss of 6,850 acres to agricultural production. Assuming that one-half of this land is under row crop production and the other under grazing, the loss would be about (3425 x \$30/acre for crop) and (3425 x \$12/acre for grazing) \$143,850 lost per year to agriculture. In addition, however, many of these laterals will cross currently irrigated fields diagonally which means that twice as many turns will have to be made with equipment putting in row crops. This will be an added cost to the farmer. Our estimation is that the inconvenience will cost at least another \$200,000 each year to the farmer. The total economic loss from these effects are then \$343,850 per year or \$34,385,000 over the 100 year period.

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21. Calamus River Unique

The Calamus River is unique among Nebraska rivers in that it has a constant flow of water throughout the year. There is very little observable erosion of banks and there is no flooding. This river is fed by springs and seeps coming from the Nebraska Sandhills. As a result of its constant flow, the river remains open and remains warmer than most other rivers. This makes the Calamus an important source of winter water for ranches and for wildlife.

The Platte River becomes nearly dry in the summer months. It is only through flow from a river like the Calamus that the Platte derives water for these minimal flows. If water is diverted from the Calamus, the Platte River may become nearly dry, thus losing a source of recreation and losing the water essential to fish and wildlife dependent upon the Platte.

22. Destruction of Uncommon Heron Rookery

There is a Great Blue Heron nesting rookery presently in a stand of Cottonwoods near the Calamus River. Heron Rookeries are not common. They are utilized year after year and serve as nesting and roosting sites and as a site from which year-old herons associate with the rookery.

The BOR claims the rookery will be protected. However, the reservoir will come so close to the cottonwood grove, that tree roots will become water soaked through a rise in ground water and a majority of the trees will die. Even though it may take several years for trees to die, the herons will be upset by an increase in human activities near the rookery and the noise from motor boats. Due to the increase in human activities, the herons will abandon the rookery. This type of environmental damage should not be allowed to go unchallenged. This type of unique wildlife area should have a price — Long charged to the North Loup Division of \$1,000,000.

23. Destruction of Kingfisher Nesting Sites

Another wildlife factor to be destroyed by the Calamus reservoir is the nesting sites for Belted Kingfishers in the high banks ranging above the Calamus. These birds require steep banks into which they can dig a nest tunnel overlooking water. This loss of wildlife habitat would be worth at least \$500,000.

24. Waterfowl Winter Habitat Lost

Loss of winter habitat for waterfowl will occur in the Calamus Reservoir area. The Calamus, Gracie Creek and the small spring-fed ponds to be inundated by the Calamus Reservoir are open all year long because of the warmer temperatures of these waters. Thus, many waterfowl have a place to stay throughout the winter. With the creation of a reservoir, waters will be subjected to more surface area and thus allowed to cool and freeze in the winter months, removing an over-wintering area.

The BOR statement claims that the reservoirs will become major nesting areas for migrating waterfowl. We doubt that they will become very important in that regard. In fact, we are reluctant to see waterfowl become dependent upon transitory reservoirs, perhaps change migrating routes somewhat and then have the reservoir become non-existent many years from now. Such artificial changes in the environment may lead to extinction of portions of a population. The value of this portion of the population genetic pool could be considerable.

25. Displacement of Non-Game Birds

Most birds are territorial, at least throughout the reproductive season. This is one mechanism of limiting the population by natural means since a pair of birds require a certain amount of space as courting and nesting territory. The inundation of thousands of acres will destroy breeding habitat for at least 40 species of birds. There will then simply be a reduction in total numbers in the state and nation of species, such as Catbirds, Robins, Brown Thrashers and our state bird, the Western Meadowlark.

There will be at least 8,300 acres lost to habitat for the majority of non-game birds. For Nebraska's state bird, there will be an expected loss of one pair for at least every five acres, or a total number of 1,660 pairs or 3,320 meadowlarks.

We do not know exactly how many species of non-game birds will be effected nor the numbers that will be reduced in each of their populations. However, for each animal displaced there should be a value charged between \$1.00 and \$500 depending upon the species, age and sex. This value will amount to at least \$500,000 annually to be charged against the project. We would reserve the right to adjust this figure upward as the BOR makes the numbers available.

26. Unique or Endangered Species of Animals: As the Calamus River maintains its constant water flow and does not freeze, there probably occur some of the westernmost or easternmost geographic range extensions of animals dependent upon open water. Furthermore, there may be rare or endangered species of animals in this region that have not been identified. We cannot give a total cost factor for this item because of lack of information presented by the BOR. However, for each unique, endangered or rare species that would be displaced, we would add a cost of \$1,000,000 to the project costs.

27. Hybrids or Hybrid Swarms of Animals

Hybrids between two species are rarely found in nature. Even more rare, are the geographic regions where swarms of such hybrids occur. These types of biological associations are sometimes extremely important to the success of the species involved. Since the Calamus is a unique river, there may be hybrids or hybrid swarms existing in or near its waters. We would reserve the right to add a total cost factor to the cost-benefit ratios at such time as the BOR has completed an adequate study. For each hybrid or hybrid swarm discovered we would add a cost of \$1,000,000 for each that was destroyed or displaced.

28. Unique Plants or Endangered Plant Species

One very unique plant species on the banks of the Calamus was identified by Rachel Snyder (editor-in-chief of Flower and Garden Magazine). It was (*Gerardia Purpurea*), a small pink flower. Miss Snyder had difficulty identifying it because most authorities do not even list it for Nebraska. Could this be the only place it exists in Nebraska or is it only very rare here? If so, it should be protected.

Since the Calamus is unique, it may have other unique or endangered plant species in or near its waters. We would reserve the right to add a total cost factor to the cost-benefit ratios at such time as the BOR has completed an adequate study. For each unique or endangered species to be destroyed we would add a cost of \$1,000,000 for each.

29. Habitat Replacement is Insufficient

The BOR states they will plant 150 acres of trees near the completed reservoirs to replace the wildlife habitat destroyed. These trees will not even begin to replace the cover lost for wildlife. Furthermore, it will be at least 100 years before these trees provide the ecological niches present in the wildlife habitat removed.

30. Pesticide Effects on Water Quality -- Effects on People and Wildlife

The flowing waters of the Calamus do not afford mosquitoes with good breeding habitat. However, the creation of a large reservoir with a shallow water shoreline and the creation of 274 miles of canals and laterals will provide for many additional sites for mosquitoes. Mosquitoes are controlled by a variety of pesticides. Pesticides will have some effect on the reproduction in animals and will kill others. Depending on the type of pesticide used, there will be direct or indirect effects upon the human population. For each vertebrate species killed or reproductively inhibited by use of pesticides or herbicides in the irrigation canal a cost should be charged of between \$1.00 and \$500.00 depending on the species, age and sex.

31. Silting In of the Reservoirs

The Calamus River bears a heavy natural silt load. This does not necessarily mean that there is heavy soil erosion. River systems have always carried silt that was deposited in other locations; thus a very slow natural change in the river valley.

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We believe that the effective life span of the Calamus reservoir will be for less than the 100 years used to justify its existence. As evidence for rapid filling, the small reservoir at Burwell is a good example. This area was constructed in the 1930's and already has a remarkable change. If this reservoir is to serve as water storage or for any recreation it is going to need to be excavated.

Before the final environmental impact statement can be completed or the final cost-benefit ratios can be finalized, there should be an adequate assessment of the number of years the reservoir would last. Obviously, the reservoir will be functional for less than 100 years. Thus, the benefits, if any, will be less than the BOR has anticipated.

32. Possible Archeological and Paleontological Losses

There have been no studies by the BOR to adequately discover whether there are past Indian cultural materials or valuable fossils in the proposed area to be inundated by the reservoirs, canals or laterals.

There is a Federal Antiquities Act protecting citizens of our country from loss of archeological sites by prohibition of projects that would destroy such sites. The Environment Protection Agency also affords this type of protection.

As the archeological and paleontological values of this site have not been assessed, no authorization should proceed. Further, we reserve the right to add other costs to the project until such time as these studies have been adequately completed by the BOR.

33. Loss of Excellent Canoeing River

As the Calamus retains its constant flow of water from springs and seeps all year long, and as it is in semi-wilderness setting, it provides an excellent river to canoe or for float trips. There are few rivers that offer this type of opportunity.

Most humans need the opportunity to return to such areas, free from motor boats and the crowded atmosphere of many public recreation areas. Thus, this river will be of increasing value as a source of quiet, peaceful recreation.

There has been no cost assessed against the North Loup project for loss of this valuable free-flowing canoeable river. We would assess \$1,000,000 per mile for this loss. As there will be some 13 miles of river effected, the cost will be \$13,000,000.

34. Loss of Trees and Shrubs

The Bureau of Reclamation has not placed in the Environmental Impact Statement or in the Cost-Benefit ratio of the project the numbers of trees and shrubs to be lost by inundating the Calamus River Valley. There are several species of trees representing harvestable timber such as Cedar, Chinese Elm and Cottonwood. We would estimate at least an average of 480,000 board feet for each of these species for a total of 1,440,000 board feet. At an average price of about \$.25/board foot the value of the lumber would be about \$360,000. These values however, neglect the smaller trees and also neglect the permanent value as windbreaks for cattle and as cover for wildlife. We would reserve the right to place a value individually upon each tree and shrub at such time as the Bureau of Reclamation makes these figures available. We are certain that these values will be in excess of \$1,000,000 in losses as a result of the North Loup Project.

35. Effects of North Loup Division Project on Calamus and Downstream River Flows

The Environmental Impact Statement provided by the Bureau of Reclamation appears to offer two alternatives:

A. The 1962 feasibility report plan, did not limit withdrawals of water for irrigation during the critical summer months and would decrease the estimated construction costs by 5.6 million.

B. A 1971 Reevaluation Statement by BOR "to provide that the natural flows of the North Loup and Calamus Rivers will not be diverted for Division purposes during July and August and during September when storage water is available to meet Division needs." The statement goes on "The cost of the additional facilities required for the modified plan adversely affects the economic justification of the proposed development."

As this document showed earlier, there will be considerable economic losses down-

stream if the flows are diverted during the summer months. Further, the BOR statement about not diverting water when storage water is available, is not at all acceptable. Either, the BOR is going to guarantee a certain amount of flow or it is not going to. There is no way to give a proper environmental impact statement evaluation until the cubic feet per second (cfs) are shown for the average, maximum and minimum flows for each month of the year. This information has not been provided by the BOR.

If water is not diverted from the river during the summer, the Calamus reservoir water levels may drop as much as 10-15 feet in one summer depending on the evaporation rate from reservoir surface and amount of natural precipitation. This type of fluctuation in reservoir water levels will destroy the recreational benefits.

36. Court Ruling in Nebraska Effecting the Legality of the North Loup Division

In a court case of Osterman vs. Central Nebraska Public Power and Irrigation District, (29780), Filed June 29, 1936 in Nebraska, the court ruled in part that:

"But, an additional reason for awarding these riparians the right to appear in this present proceeding is to be found in their situation. A peculiarly valuable portion of their lands is the subirrigation which, as we have seen, nature constituted a part thereof. While subterranean channels may not exist or be completely identified, these subterranean waters come to and flow under their lands from definite sources and en route to definite termini. The lateral boundaries of this body of water may not be certainly located, but its existence as a body of water finding its way through the soil of the riparian land, is completely established. We are committed to the rule: 'The owner of land is entitled to appropriate subterranean waters found under his land, but his use thereof, must be reasonable, and not injurious to others who have substantial rights in such waters.' Olson vs. City of Wahoo, 134 Nebraska 802, 248 N.W. 304."

Several other sections of this ruling deal with the same subject. In other words, water may be used for irrigation, but may not be diverted to the watershed of another stream. There will be some diversion in the North Loup project to the watershed of the Middle Loup. Furthermore, there is no guarantee of an adequate flow of water down the Calamus and North Loup to replenish the subirrigated wet meadows and alfalfa so important to agriculture for production of hay for an economy dependent on ranching and feeding operations.

* Thus, if this project were authorized by the United States Congress, it would be superimposing authority over Nebraska Law.

37. Loss of Acres to Agriculture

In total, the North Loup Division will take out of production at least 19,405 acres of row crop, alfalfa, and other hay and grazing lands.

They are as follows:

Calamus Reservoir	5,150
Additional easements around Calamus Reservoir	3,750
Davis Creek Reservoir	1,145
Additional easements around Davis Creek Reservoir	2,510
Loss of acres from the 274 miles of irrigation canals and laterals	6,850

Total acres lost to agriculture (at least) 19,405

(These figures from the Environmental Impact Statement)

* There may be as much as 5,000 additional acres out of production around the two Reservoirs by the time all of the easements are purchased. At best, there will be 25,000 acres remaining in the district that could be irrigated. This is because many farmers have already installed central-pivot irrigation or are planning to install them in the near future. Furthermore, there are many small acreages such as five or ten acres plots that appear on the irrigation district map that would not be irrigated or farmed with current types of agriculture practices. It would simply be a very inefficient operation.

In terms of farmer benefits, central pivot irrigators are capable of providing water to lands with a greater slope and over rougher terrain than the gravity feed systems from lateral canals. Farmers are forced to invest more money in land leveling activities which

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decreases their margin of income.

In conclusion, it appears very inappropriate to lose 19,405 acres for any agricultural production while producing water for less than 25,000 acres of suitable irrigable lands.

38. Interest Rate Makes Project Infeasible

One of the most important costs to taxpayers is a result of interest rates. We have not been provided with the interest rate charged to the project in the draft environmental impact statement. However, we have learned that the project has been justified by BOR at the $3\frac{1}{2}$ percent rate. The rate should be set at current values. We realize, however, that these types of projects have so few, if any benefits, that interest costs that other citizens pay would make the project costs far outweigh the benefits.

The $3\frac{1}{2}$ percent rates used in the feasibility reports by the Office of Management and Budget are the result of an administrative decision. We believe that this administrative decision was a major error and that the OMB should reconsider this aspect of the project feasibility.

Summary of Some Costs Not Considered
in the Feasibility Report or the
Environmental Impact Statement

<u>Category</u>	<u>Direct Loss-Lump Sum Damages</u>	<u>One Year Loss</u>	<u>*100 Year Loss</u>
Windbreaks	\$ 1,350,000		
Loss of Alfalfa or Hay Meadows- Under Reservoir		\$ 297,000	\$ 29,700,000
Ice-free water- sources for live- stock		53,000	5,300,000
Damages for Sociological and Psychological Values	2,600,000		
Lowered property values of remaining acres in ranches affected	1,000,000		
Lower Corn Prices		2,000,000	200,000,000
Loss of Deer		136,000 +	13,600,000
Loss of small game animals		8,300*	830,000
Tax Base Loss to Counties		70,840	7,084,000
Upkeep on Canals and Laterals - Beaver Damage		27,400	274,000
Loss of Cattle Producing Acres - Inundated Areas		184,500	18,450,000
Decreased Value of Hay Producing Acres Downstream from Reservoirs		1,000,000	100,000,000
Loss of Cattle Producing Acres and crop Producing Acres from - effects of Irrigation Canals and laterals		343,850	34,385,000

*100 years used by the BOR in the feasibility reports.

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Summary of Costs (cont.)

<u>Category</u>	<u>Direct Loss-Turn Sum</u> <u>Damages</u>	<u>One Year Loss</u>	<u>*100 Year Loss</u>
Loss of Great Blue Heron Rookery	1,000,000 ⁺		
Loss of Kingfisher Nesting Sites	500,000		
Displacement of Non-Game Birds		500,000	50,000,000
Loss of Endangered Animals	?		
Loss of Endangered Plants	?		
Loss of Hybrid Swarms	?		
Loss of Archeological or Paleontological Sites	?		
Loss of 13 miles of Free-Flowing Canceable River	13,000,000 ⁺		
Loss of Trees and Shrubs	1,000,000 ⁺		
Loss of Animals or Plants or Health Effects on Humans			
Pesticides on Mosquito control; herbicide on aquatic weed control	?		
Costs to environment of Loup River, Platte River, Missouri River, Mississippi River and the Gulf	?		
Totals	<u>\$20,450,000</u>	<u> </u>	<u>\$459,623,000</u>
Direct plus 100 years losses		<u>\$480,073,000⁺</u>	

Final Cost-Benefit Ratio

The reevaluation statement for the North Loup Division by the BOR in Table 5, page 40, shows total annual cost at \$2,915,000 and total direct benefits of \$3,127,000 each year and direct plus indirect benefits of \$3,871,000.

These show a 1.10 : 1.00 benefit cost ratio

(direct benefits only)

and a 1.33 : 1.00 ratio using total benefits

However, if we add the additional annual cost shown in our evaluation, the cost to benefit ratio would be as follows:

Total additional cost that we show in this statement:

\$480,073,000 over 100 years

or

\$4,800,730 per year

If we add this cost of:

\$4,800,730

and the

BOR calculated cost of:

2,915,000

Total annual cost

\$7,715,730

Total benefits — direct plus indirect —

\$3,871,000

This gives a ratio of benefits to cost of:

0.50 : 1.00

On the basis of benefits that are less than half of the cost, the North Loup Project should not be authorized.

Senator BURDICK. Our next witness is Mr. Max Kilburz, general manager of the Loup Power District.

**STATEMENT OF MAX KILBURZ, GENERAL MANAGER, LOUP
POWER DISTRICT**

Mr. KILBURZ. My name is Max Kilburz. I want to be brief, Mr. Chairman.

The Loup River has operated a hydroplant in the lower reaches of the Loup River for 35 years to a capacity of 40,000 kilowatts.

First, we have followed very closely and are interested in the development of these waters of the Loup River and we feel that this project would be a proper utilization of these waters for the development of this area.

Second, we serve the electricity in the four-county area, and supply both retail and wholesale consumers. Our economic development of this area is closely tied to the development of these water resources. Part of this land which will be irrigated by this project lies within our four-county area.

Columbus and other towns in our area manufacture a lot of agricultural related goods. It would be a good economic boost to our particular area, and for these reasons we hope the Senate will authorize this project.

Senator BURDICK. Where do you get your power supply?

Mr. KILBURZ. We generate our power, some from the Bureau of Reclamation as well as from the other generating plants in Nebraska.

Senator BURDICK. How much do you get from basin power?

Mr. KILBURZ. Right now, 25 to 30 percent of our power is Bureau power.

Senator BURDICK. And the generation is coal-fuel generation?

Mr. KILBURZ. There are some hydroelectric plants in Nebraska, and the rest is coal fire generating plants in Nebraska.

Senator BURDICK. In other words, you think this will help the area?

Mr. KILBURZ. Yes.

Senator BURDICK. Thank you very much.

The next witness is Mr. Thomas W. Tye, attorney at law, representing Save the North Loup and Calamus River, accompanied by A. Blessing, Gaylord Wallace, Lloyd Geweke, Clifford Goff, Robert Schrup, and Larry Holcomb. As you testify just introduce yourself.

**STATEMENTS OF THOMAS W. TYE, REPRESENTING "SAVE THE
NORTH LOUP AND CALAMUS RIVER"; ACCOMPANIED BY ALFRED
BLESSING, GAYLORD WALLACE, LLOYD GEWEKE, CLIFFORD
GOFF, AND ROBERT SCHRUP**

Mr. TYE. Mr. Chairman, I will have these gentlemen introduce themselves. I would like to have them briefly make a short statement to you as these gentlemen are all active in this area. These are the farmers, these are the ranchers.

I would, Mr. Chairman, like, however, to offer for the record a great deal of material which has been supplied here. These are by

way of letters and statements from other people in the area as well as our prepared written statements which we would like offered for the record at this time. I have a copy of them here.

Senator BURDICK. I will receive them, but I want to make sure that the statements now being put into the record are from people who live in the project area?

Mr. TYE. Yes, or in the area to be affected by the dams or canal system.

Senator BURDICK. They will be received without objection.

We will recess for a bout 15 minutes.

(Recess.)

Senator BURDICK. All right, proceed, Mr. Tye.

Mr. TYE. Mr. Chairman, if I may, I would like to merely state that the letters and statements which I have offered are from approximately 29 different people or individuals, they represent such people as farmers in and operators in the area. They also represent such people as Mr. James M. Wolf, who is president of the Albion National Bank in Albion, Nebr., they also represent some people, in answer to your earlier question, I believe three approximately, from other areas who have canoed or been interested in the area from a recreational standpoint. One of those, for example, is Raphael Sneider, editor in chief of the Mid-America Corp.

Mr. Chairman, you have asked this morning a couple of questions which had reference to underground water supply in this particular area and because this particular publication which was published by the State of Nebraska, Division of Nebraska Resources is presently not being republished, I have only a few copies. But I should like to offer it for information of the chairman and for the file, if I may. It shows the groundwater reserve and supply in this particular area of Nebraska, it shows the Sand Hill area as having a very large capacity and supply of underground water. In fact, if the underground water supply in the state of Nebraska were put on the surface, it would cover the State to a depth of 34 feet.

Senator BURDICK. While you are on the subject, my recollection is that we approved the Mid-States project in Nebraska, and there was some evidence in the record indicating that the ground table lowered in that area.

Mr. TYE. May I comment on that, Mr. Chairman?

Senator BURDICK. Yes.

Mr. TYE. There has been and there was and I am sure, Mr. Maine can testify and tell you what their intentions were at that time with reference to the lowering of the ground water in the mid-State area. I believe that there has been some slight lowering of ground water. However, it has been very, very slight, because of the fact, and I don't remember the exact number, but there are 6,000 or 8,000 wells in this particular area which have been developed in recent years. The local mid-State board, and I am sure Mr. Maine can tell you about this, has put a map out recently, showing some areas in the Mid-State area dropping over 5 feet in depth. But the way this is derived is the fact that this is a map showing water table in the fall of 1969 to the fall of 1971. This is very easy, because in 1969 we had a very wet year in Nebraska, and in fact many of our irriga-

tors in the Mid-State area where I come from, didn't turn their pumps on, there was no need to. As a result the ground water was recharged through the river flow, because of rainfall and was not drawn down, and we had a very high level groundwater at that time. In the summer of 1971 and 1970, it has been terribly dry. There has been no rainfall. As a result, there has been a drawdown. We have had no precipitation recharge. However, the Mid-State group, which I am representing, is preparing and is in the process of doing so now, a map which will show over a much longer period of time, from approximately 1958 or probably 1948 to the present time, the groundwater levels and I believe that will show there is very slight difference now than there was in 1948, and I believe this to be the case in the area in which we are talking of now.

I have with me some irrigators who have been pumping in that area, and they will tell you their wells they have measured are approximately the same today as they were when they began irrigation process.

I also have, Mr. Chairman, and you have been asking this morning, to some extent about the Calamus area itself and what areas will be inundated, and we have prepared a drawing here which may be of some assistance to you in following the testimony of particularly Mr. Wallace and Mr. Schrup who own land in that area.

Mr. Chairman, there are also some photographs there which give you an idea of the area we are talking about, particularly when the area will be inundated by the Calamus Reservoir and what will be taken, and the looks of the Sand Hills next to it.

I would like these gentlemen to make a brief statement and I have one additional thing I would like to offer in conclusion. Mr. Wallace, would you care to start?

Mr. WALLACE. Mr. Chairman, my name is Gaylord Wallace, from Burwell, Nebr. I submit my written statement for the record and because of the limited time I should like to call your attention to two or three major points.

My ranch home is located on the Calamus River and we operate 11,000 acres of land on which we raise cows. The dam will practically take us out of business because of loss of our homes, buildings, corrals, hay meadows, and alfalfa grown on the river bottoms. The dam will take all of the hay meadows and farmland up and down the river and completely ruin 18 ranchers and their operations of over 50,000 acres.

These 18 homes, there are 13 families and the population would be around 50 people in the 13 families.

Senator Curtis said there were 12 to 14 that signed a petition favoring this dam. If that is the case, there are probably 35 of us that signed a petition opposing it, but we have all presented letters to you for that purpose. I can name the names of these families, such as Mr. Schrup, Mr. Larson, Lehand Shersberg and his mother, Russell Mall, Rupert Bistry, Cy Wright, and there is the Vale View Club, which has been in the area for 50 years.

We ask the project not be authorized, Thank you, and I will be happy to answer any questions which you have.

Senator BURDICK. How many acres are there in your farm?

Mr. WALLACE. Eleven thousand acres.

Senator BURDICK. How many cattle do you have?

Mr. WALLACE. I have calving 300 cows, and I will have 70,000 heifers to calve next spring, and my long-range intent was to operate a 500-cow operation. I am losing the two shelter belts—I am losing one 2,640 feet long, over 200 feet deep. These have cedars, pines, cottonwoods, in fact, it is so thick you don't ride a horse into it.

There is another shelter belt behind it, 1,540 feet long and 40 feet wide.

I don't see how a man can operate a ranch and go out and replace an operation such as this.

Senator BURDICK. There are 18 of you?

Mr. WALLACE. Yes. And every one has a shelter belt comparable to what I am talking about.

Senator BURDICK. Are all of the families opposed to this project?

Mr. WALLACE. No, sir.

Senator BURDICK. How many are?

Mr. WALLACE. The ones opposed are people in their 60's, one family I know is on social security. I mean these are for. They hope to sell their lands for \$400 an acre and retire in town. If they can get the job done, I will go along with them. I don't think they are going to get that kind of job done, but there is about four families of the 13 that are actually for this project. The other nine are definitely against it.

Senator BURDICK. Do any of the nine families or any of the 18 families say, have any of the land that might be in the new development area?

Mr. WALLACE. No, sir.

Senator BURDICK. None have land over there?

Mr. WALLACE. No, sir.

Senator BURDICK. Do you know what the attitude of those farmers in that area is?

Mr. WALLACE. That are going to receive the water?

Senator BURDICK. That's right.

Mr. WALLACE. Yes, sir. I was one of the three or four men that went down into the Scotia area, and down in the Elba area, asking a man to sign his name, how many acres he owned, how many acres were irrigable, how many acres were under the reclamation district, what type of pump system he used, and in the Scotia area I contacted three men who were in favor, one of the men was one of the original members started this district in 1942. He signed a card he was definitely against, because he didn't want any part of it. This is the same way all up and down the valley.

Senator BURDICK. You mean to say they are against this project and the area will be benefited?

Mr. WALLACE. Yes. Why should they have a ditch and all of this, when they will be on sprinkler systems? Much of this land cannot be irrigated under no conditions. They have their circular systems and circular systems doing the job for them.

Mr. TYE. Mr. Chairman, if I may, Mr. Geweke, the second gentleman on my left, lives in what we call the Mira Valley area, which you will notice there is just to the left of Ord, Nebr., he lives in the

area supposedly to be benefited. He made a rather extensive survey of his particular area and I think he can tell you more about what he found.

Mr. GEWEKE. My name is Lloyd Geweke. I am from Ord, Nebr. I live in this area proposed to be irrigated by this Reclamation Bureau. I submitted a written statement which you have copies of.

I will talk primarily about the Valley County area, which I live in, and of which I am very well acquainted and the benefits from this project is to be about 20,090 acres in this particular area and that is what I would like to speak primarily about.

I am a farmer, rancher and cattle feeder. I operate a 2,080-acre spread in Enterprise Township, and plus 20,040 acres in Almeria-Noble Township. We have 400 acres lie in the boundaries of the proposed district. My irrigation experience goes back to 1949, from along the North Loup River from Ord up to Burwell. Thirty years of experience irrigating in this project of which my dad and I own 320 class 1 acres. It shows after irrigating for 30 years that this kind of project is not satisfactory or feasible. Both of these quarters that I have talked about, are supplemented by pump irrigation to supplement the open ditch project.

Now, down on the homeplace, which is in this area, in this district that is to be irrigated, we drilled out first well in 1954. For a number of years when my children were young and I was full of pep, we carried pipe and irrigated 300 acres of this land by three 8-tee road sprinkler lines. In 1954—in the early 1960's we have leveled 95 acres of this land at a cost of \$110 an acre. The 1954 well handles this 95 acres of gravity irrigation with ease. This well that I drilled in 1954 pumps every bit as much water a day as we do. We drilled in 1966 another well on the southwest one-third of 15, and leveled 45 acres and bench-leveled 60 acres, costing over \$60,000. This land is all class 2 land as far as records show for the Bureau of Reclamation and from this or these two wells, we irrigated over 200 acres.

With the wells we can irrigate this but from a ditch system it would be practically impossible because we use low-pressure gated pipe systems so we can run our water both ways from the well uphill. The estimated cost of running these wells in the last year is as follows: Well No. 1, \$11.15 per acre to deliver 3 acre-feet of water to 95 acres. Well No. 2, \$11.64 per acre, to operate while delivering 3.6 acre-feet of water to 105 acres. The estimated cost of \$10.60 per one-half acre-feet as proposed by their plans of this North Loup Irrigation Division of this project is about twice as high as my present system and we feel as irrigators in this county, in a normal year you can't raise a corn crop with an acre and a half of water.

Last year I used three on both my wells. More modern type irrigation systems in our area, is the new pivot system. The AFC map which I have attached on here, section 33, shows how the pivots and sprinkler systems are doing the job. The south half of 33 is owned by one man and he irrigates from one well. He irrigates 145 acres by sprinkler and 135 by pivot, costing, and I got these costs from Mr. Volk, the cost of \$5.15 per acres, while applying $1\frac{1}{10}$ acre-feet of water per acre, and the northeast one-fourth of section 33, shows 64 acres irrigable on the bureau maps, is irrigating 147 acres by two toe

lines. The northwest 133 shows 83 acres irrigable by the Bureau map.

All right, we are talking about this 20,000 acres, all ready 140 wells irrigating over 18,000 acres. I feel, Mr. Chairman, certainly, that a ditch system would be disastrous in this area because of the terrain, the 105 miles of proposed laterals and 65 miles of canals in this county, will cut the land capacity. A three-quarter-mile lateral is proposed crossing my irrigated ground, building site, and feedlots, to irrigate 17 acres of proposed land on my neighbor's place. It does not seem feasible to spend \$74,000 for 19,000 acres to irrigate an estimated 52,000 acres of which a vast amount is already being irrigated.

It is estimated the benefit summary total of irrigation is a little over \$3,800,000. Three-fourths of our benefit is to come from growing corn. If we raise corn to sell on the open market in the last 10 years we wouldn't be able to survive. The only way we can make a dollar in corn payoff is by feeding it to cattle and hogs. That is our major industry. Seventy-five percent of the corn in our area is fed to livestock.

I have a paper showing what has been collected in taxes in this area, we feel that the \$52,265 has been a wasteful expense for a needless and unnecessary project.

I have signed cards from landowners, representing over 27,000 acres of land, that lay within the area of this district of Valley County only, that show they do not wish to receive water from this system.

Senator BURDICK. What percentage is this again?

Mr. GEWEKE. 27,000 acres of landowners that live within the district of Calley County.

Senator BURDICK. The project area?

Mr. GEWEKE. Yes, sir. Not a one of them is out of the project area. This is all landowners.

Senator BURDICK. How many would that leave in the project area?

Mr. GEWEKE. I haven't contacted near all of the people in this project, sir. If we had unlimited time. The first go, when we were showing our context, I think we had 12 to 1 against it.

By the way, this survey has been made in the last 3 weeks.

Senator BURDICK. Twelve to one in the project area against it?

Mr. GEWEKE. At one time we started our project, we have 12 to 1 against the project in my area, sir.

Senator BURDICK. How many acres are there in your area?

Mr. GEWEKE. There is to be 50,000-some irrigated and around 60,000 acres all together. Land within the district, that pay taxes to help finance this.

Senator BURDICK. What percentage of your area is the percentage of the total project area?

Mr. GEWEKE. It will be a little over half. You see there is a 52,000, we are over 20,500, so it would be right about half.

Senator BURDICK. There are 12 to 1 against in your part of the district?

Mr. GEWEKE. I can say there would be 12 to 1 against. This was when we stopped and counted our cards.

Senator BURDICK. What is it now?

Mr. GEWEKE. I don't know, except the total I have is 27,000 acres and this represents about 70 landowners in this area. We didn't have time to canvass the whole area. We were short on time when this came up.

Senator BURDICK. It seems to be a substantial number.

Mr. GEWEKE. This is the bad part. I feel that \$10.60 for one-half acre-foot of water is so high that most of the landowners won't want to contract. They cannot raise the corn crop in a normal year on an acre and a half of water, on a gravity system. My land went 3 acre-feet of water last year. I am sure that the 54 well would be pumping more water today than it was at that time.

We are in a sandstone water area and we receive our water from approximately 200 feet of sandstone and as this water flows through this area there is something about this that the more that goes through it the more will go through it, and we have a little better well as our wells progress as we have before.

Senator BURDICK. Do you have any information as to how much water is lost in the open ditches?

Mr. GEWEKE. I think around 60 percent of the water is lost due to evaporation and seepage.

Mr. Tye. That 30-percent estimate, Mr. Chairman, was given with reference to the Mid-State project. This is a sandy soil, much more so than in the Mid-State area.

Senator BURDICK. All right.

The next witness is—

Mr. TYE. Mr. Chairman, I would like to have Mr. Robert Schrup make a few comments to you, he is here representing Taylor County Board of Commissioners, in which he is a commissioner in Loup County.

Mr. SCHRUP. Mr. Chairman, members of the subcommittee, my name is Robert Schrup. I am a member of the Loup County Board of Commissioners. I have served in that capacity for the past 10 years.

I am appearing before this subcommittee as a representative of the Loup County Commissioners and also Loup County.

The reservoir on the Calamus River which is a part of the North Loup project, together with other land taken by the District will cause Loup County to lose more than 10,000 acres. This land will not only cost the loss of 18 families, the means of their livelihood, but will no longer be available to Loup County for tax purposes. The value of the 10,000 acres for tax purposes is set at \$423,570. The personal property, \$324,573. Also, buildings \$40,760, making a total of \$788,903.

However, we feel that if this 10,000 acres was sold as one unit the asking price would be well over \$200 an acre. It is stated that the tax loss to Loup County for a year would amount to approximately \$7,600. It is to be remembered that this loss will continue from year to year.

The Loup County Board of Commissioners has been besieged with numerous objections from a great percentage of the citizens of Loup

County, specifically objecting to the said project for the following reasons.

No. 1, the loss from the tax rolls of a large amount of property, adding to the difficulty of suitable governmental operations for its citizens.

No. 2, Loup County will receive no economic benefit of any nature while it will from year to year lose a substantial amount of tax income. Loup County has had no opportunity to express its desires relative to said project. It is the firm belief of the county board of commissioners that said project is not feasible, but it will, if promoted, create a burden on all landowners in the district.

The petitions have been circulated, opposing said project in which owners and operators of more than two-thirds of the land in Loup County, oppose the completion of said project and appeal to Congress to prevent this North Loup Reclamation District be approved.

The board of county commissioners in regular session on March 13, 1972, adopted a resolution requesting that the above project be discontinued and fully abandoned. A copy being attached to this statement.

Senator BURDICK. That Loup County area is in the area of the reservoir?

Mr. SCHRUP. Yes, sir. I would like, Mr. Chairman, to mention that my thinking is that the rise in water level in time will kill out the entire 13 acres of trees and also destroy the nesting grounds of the herons. Most of these trees, I understand, are over 100 years old and would be hard to replace.

I think, Mr. Chairman, that is all I have, unless there is a question.

Mr. TYE. Mr. Chairman, we have one other witness who is Mr. Al Blessing, an attorney in Hastings, Nebr., and also a landowner in the Elba area.

Mr. BLESSING. Mr. Chairman, my name is Alfred Blessing. I reside at 1125 North Kansas Avenue, Hastings, Nebr.

Now, for a little geology. Mr. Geweke here spoke about the Valley County land and I would like to chat just a minute about the Greeley County and Howard County land. Of course, I am in the so-called benefit area also. That is down between Elba and Cotesfield, off the Elba Canal.

Senator BURDICK. You seem to be north of the river some distance.

Mr. BLESSING. We think of it as west of the river. I was born on a farm a mile west of Elba in 1930, 5 or 6 years ago I purchased the farm from my father who was operating it, and this is a farm that has some significance for me. It is located on the first branch of the North Loup River and is in the heart of the area there to be served by the Elba Canal.

This land was immediately leveled, three wells drilled and we have operated and irrigated farms during the crop years of 1957 to 1971. During this period of time we found that it is necessary to apply an average of 2.25 acre-feet of water from our wells to supplement the rainfall. There is only 1 year of the 5 that we were able to get by on less than 2 acres. But it averaged out to about 2.25. This is 50 percent more than the acre-feet that will be delivered under the proposed project. It seems to me it is not feasible to raise corn on a foot and a half of water for irrigation in this valley. You

can't provide the type of irrigation which is suitable and will yield the type of benefits that they are talking about.

Another thing that disturbed me is we have had a lot of talk and this project is being sold on the basis they are going to bring irrigation to the North Loup Valley. Gentlemen, irrigation is there. As a matter of fact, even in 1958 when the irrigation district was organized, when they conducted their first study, we were talking about 52,000 total of irrigable acres. At that time, in 1958, of the 52,000 acres, 17,000 were already irrigated.

When we talk about benefit, we can't talk about benefits for 52,000, we have to talk about benefits for 55,000. In the intervening years since 1958 and bringing it up to date, I was able to, through the help of Mr. Geweke, I was able to study the present state of irrigation in the county. I canvassed 75 percent of the proposed project.

Based upon this canvass, which comes directly from the records of wells and so on, there are now 30,000 irrigating acres in the valley, remaining to be irrigated, 22,000.

When we talk about benefits, we can't talk about the 52,000, we have to talk about today, and today there are only 22,000 acres in the project which are not already irrigated.

I submit to this committee that the good farmers of the Loup Valley have already brought irrigation to the valley. We don't need the Bureau of Reclamation to bring it there for us at a substantially greater cost that we are delivering our water.

Further, there was a 10-year period for development, and in advance development of the valley continues. Once again, the good farmers drilling the wells and spending the money themselves as it has over the last 10 years. So if you pass the bill and if the Bureau goes into the project, instead of benefiting 52,000 acres, I submit an important realistic figure is 13,000.

Senator BURDICK. And you are taking out approximately 20,000?

Mr. BLESSING. That's correct, and it seems to me this is interesting.

Senator BURDICK. Your theory is you are only going to gain 13,000 acres, because you are taking out 20,000 for easements and reserve. To follow your argument, are you going to have it all irrigated in 10 years, and it will be 13,000 acres. The area needed for the reservoir and their easements will be 20,000?

Mr. BLESSING. That's correct.

There is one other item, and I submit the people computing the cost for acquisition of easements, and, as I recall the testimony, the Bureau indicated there would be some 375 miles of canals.

But there is a rather interesting recent case in Nebraska, down from Hamilton County. There was a man there who had an irrigated farm suitable for gravity or sprinkler system and the power company acquired an easement across the ground. This easement ran about a mile. He was awarded the sum of \$60,000 by the district court for this easement and the only difference was that after the easement was granted he had to irrigate by gravity rather than by sprinkler.

There are several of these systems presently being operated which will be cut diagonally by the proposed canals. It seems to me the people studying these costs should restudy their costs in the light of

what the courts have been deciding in the State of Nebraska as reasonable compensation for cutting diagonally across the field.

In the light of these costs and changes in the benefits, this is in 1958, we have to look at it based upon the 1972 figures, and I apologize, but I don't have any more accurate figures. I would hope that perhaps the Bureau or district could study it and come up with up-to-date figures on the acres that will be benefited.

Those acres that are not now irrigated which could be served by the district it seems to me this is the significant figure.

The good people of the valley have taken care of the acres irrigated with wells, and based upon this, it seems to me the committee should give serious consideration to suspending any further action on this project and require further study to give accurate reflection of the actual irrigated acres which will result from this project.

Senator BURDICK. What has been your observation as to the groundwater levels?

Mr. BLESSING. There has been no change, no problem at all on the three wells. My father-in-law operates in another part of Nebraska, pretty much served by the same groundwater flow, one well operated since 1953 and another one since 1967, and he has no difficulty at all. If you draw it over a longer period of time it remains constant. As a matter of fact there is an area to the southwest of here where the water level is coming up instead of going down. A lot of people think it is because of the dam which is destroying some of the good irrigated grounds because of the moisture that percolates under.

The land presently immediately below the dam might suffer the same fate because of seepage. This can be a real problem below a project like this. It has been very destructive in some areas of Nebraska because the water level is rising.

Mr. TYE. Mr. Chairman, if I may ask Mr. John Koll here only for the purpose of answering your question with further reference to water levels and wells.

Mr. KOLL. My father is 75 years old. I am 43. My granddad bought the place in the first place and dad took it over, and I am gradually getting into the swing of it.

In 1905 they drilled their first well to static water level. It was 92 feet. In 1955, in the fall of 1955, there was drilled the first irrigation well. This well is located a quarter of a mile not over that and it was 97 feet. But then last year, we went back and built a new stock well, our well rusted out and we wanted more water for the livestock, so we put down a submersible electric well. This was during the summer while we were pumping our irrigation wells, and we built this new stockwell, and it was 92 feet to static water level.

From 1955 to 1972, I would say our static water level has not dropped.

Senator BURDICK. In all fairness, are you not going to have the maximum irrigation that you might have under this project of 52,000 acres?

Mr. KOLL. No. Actually the time to take your water levels and so forth is through the winter months. I realize the more wells put down the lower it is getting to draw it down in some cases. When we drilled our irrigation wells, we have two, and when we drilled them the static water level was 45 feet, they drew it down to 200 feet when we drilled it in 1955. Last year, one of our driest seasons,

we have had tremendous irrigation wells put in since 1955 and the draw down on that well, it was in shape to pump, and was drawing down to 175 feet. That tells me that well got 25 feet better.

Our well at home drew down from 97 feet when we drilled it, to 175 feet last summer. But last summer, I drew down to 175 feet, so I don't know, it all depends on the water bearing material you have in the well, where your water bearing material is.

I should explain about the structure of our well at the bottom of ours, it has 19 feet of water bearing gravel clear down at the bottom, our well is 338 feet, from 120 to 118 feet, or about 381 feet to 336 feet, we have got to have fine gravel that the well drillers say is the best in the State and so they went on down into 2-foot mire and put the end plug and cased our well. Now, the well drillers and the wellmen there say we will never run out of water there on that pump. A lot of these wells have their water bearing material up, say 150 feet, and 140 feet.

If our water bearing material was there, we wouldn't get any water. That has to be taken into consideration too.

Mr. TYE. Mr. Chairman, I have one short thing and then we are through. Attached to my written statement which was offered and accepted for the record, is a proposed amendment to Senate bill 2350. We request, Mr. Chairman, and offer this amendment to the bill at this time and request that the committee take into consideration. This amendment is the very same as the amendment that we offered in the hearings on the midstate bill, which was included in the bill as finally passed.

In effect it guarantees to these people and to the rest of the people in the reclamation and irrigation districts that this project will not be constructed or built until there is a guarantee to us that they do have water contracts for the 52,580 acres of land proposed to be irrigated and/or to make the project feasible.

We therefore offer this proposed amendment and ask that the committee take it into consideration.

PROPOSED AMENDMENT TO S. 2350

In order to assure repayment of the irrigation portion of this project, no funds shall be appropriated nor shall any construction be started until firm and binding contracts have been signed by the owners of the full 52,570 acres of land to be irrigated from waters furnished by the North Loup Division of the Missouri River Basin Project, said contracts to be certified by the local Board of Directors of the North Loup Division, Nebraska, of the Missouri River Basin Project.

Senator BURDICK. It will be considered. I think it is important to know the attitude of the people in the project area, and the witnesses have testified a certain percentage is relating to who is against and who is for it. Those of you who oppose this project, if you will give me a little better reading on your public opinion polls that you took out there, I would appreciate it.

Mr. TYE. Mr. Chairman, we began to prepare for these hearings approximately 3 weeks ago. We began canvassing the area at that time. Mr. Geweke testified about the people he canvassed in this area. We attempted to pursue this contact. And if the committee will allow, we will be glad to submit in writing at a later date our conclusion when that poll is completed.

Senator BURDICK. I would appreciate it. Thank you very much.
Mr. TYE. Thank you, sir.

(The complete statements of Alfred Blessing, Gaylord Wallace, Lloyd Gweke, Clifford Gubbs and Robert Schrup follow:)

STATEMENT OF ALFRED BLESSING, HASTINGS, NEBR.

My name is Alfred Blessing; I reside at 1125 North Kansas Avenue, Hastings, Nebraska. I was born in 1930 on a farm about one mile west of Elba, Nebraska; at that time the farm was a livestock-feed grain and small grain operation owned by my grandfather Elijah Welsh and operated by my father Alfred Welsh. After the death of my father in 1933 I lived with my grandparents in Elba, Nebraska, a small farming community, and continued to reside in the North Loup Valley until entering the U.S. Army in 1955.

In 1966 I purchased the S² ≠ 32 - 16 - 11, commonly known as the "Towar's Land," from other members of the Welsh family, this land being a part of the farm where I was born. The "Towar's Land" is comprised of about 310 A. of reasonably level cropland located on the first bench of the North Loup River midway between Elba and Cotesfield, Nebraska, and in the approximate center of the farming area which would be served by the Elba Canal of the Calamus Dam Project. The Towar's Land was leveled in the fall of 1966, three irrigation wells were drilled and during the intervening crop years of 1967, 1968, 1969, 1970 and 1971 it has been operated as an irrigated farm.

In this five-year period we have found it necessary to apply an average of 2.25 acre feet of irrigation water in addition to our normal rainfall in order to secure satisfactory results. Our cost in applying this irrigation water to the Towar's land during the same period has averaged \$6.31 per acre foot as compared with a projected cost of \$7.07 per acre foot from the Elba Canal of the proposed Calamus Dam Project. Thus, the existing irrigation practices now utilized on the "Towar's Land" provide water at substantially less actual cost than the proposed cost suggested by advocates of the Calamus Dam Project. Of course, everyone knows that it is far more desirable to use well water than ditch water in a farming operation, e.g., greater availability of water, more flexibility in time of application, less weed control problems, use of center pivots, reduced leveling costs, reduced labor costs, etc., are all factors which dictate the use of well water whenever a choice is available.

Certainly a 73 million dollar Irrigation Project must be financed to a large extent by the water charge imposed per irrigable acre. According to the 1958 study of the Twin Loups Irrigation District there were 34,603 irrigable acres in the District. During the past few weeks I have surveyed the District lands located in Howard, Nance, Greeley, and Valley Counties (which lands comprise over three fourths of the irrigable acres in the district) and found a remarkable shrinkage in the irrigable acres in the District. Assuming that the percentage figures computed from these counties also prevail in Nancy County, it would appear that there are now only 21,592 irrigable acres in the District instead of the 34,603 irrigable acres available in 1958. It is reasonable to assume that this trend will continue (and even perhaps accelerate in view of the development of the center pivot systems) in the future and thus at the time that water might be available from the proposed project the irrigable acres will no doubt have shrunk to about 13,472 irrigable acres. With the smaller number of irrigable acres available the proposed water charge would have to be increased to such a high figure that the use of ditch water for irrigation in this Project would be absolutely prohibitive.

There have been some rather interesting developments in other ditch irrigation projects in the state of Nebraska during the past few years. Several of the farmers who formerly utilized water from the Tri County Irrigation District in south central Nebraska have terminated such water use as being impractical. The management of both the Farwell Project and the Mid-State Project in central Nebraska require farmers to sign extended commitments for water use, e.g., a 50-year contract in the Mid-State Project, thereby recognized that terminations by water users present serious problems and therefore the requirement of such longterm commitments by proposed water users is an admission by Project management that a substantial number of farmers often terminate ditch irrigation once they have tried it a few years.

A recent award by the District Court in Hamilton County, Nebraska in an eminent domain proceeding appears significant and we believe should cause an

upward revision of easement acquisition costs in this Project. The owner operator of a half section of irrigated cropland suitable for either a center-pivot system or gravity type irrigation was awarded the sum of \$60,000 for a power line easement across his property, which merely prohibited the use of a pivot system but still allowed use of gravity irrigation. In the Calamus Dam Project there are several center-pivot irrigation systems now in place and operating which will be cut diagonally by Project canals and more of these systems are being installed every year along the proposed canal routes. The impact of this decision must be weighed and new acquisition costs computed before an accurate cost benefit ratio can be submitted to this Committee.

Gentlemen, in light of the increased costs of this project and the tremendous shrinkage of irrigable acres we urge you to give serious consideration to suspending any further action on this project for the reason it is not economically sound or, in the alternative, requiring further study which will give a more accurate reflection of the actual number of irrigated acres which would result from the funding of this project.

STATEMENT OF GAYLORD WALLACE, BURWELL, NEBR.

My name is Gaylord Wallace of Burwell, Nebr. I have been a ranch owner and ranch manager for 34 years. At the present time my wife and I own 7720 acres of land, and rent 3,280 acres of land, on which we run 300 cows, calving at present time, plus 70 coming 2 yr. old heifers, which will calve spring of 1973. Also we are retaining 60 heifer calves to put into the breeding herd, or to calve in 1974. So by 1974 we will have 400 cows calving. Our long range plan was to build this ranch into a 500 cow operation.

But now discussion of part of our land being taken away from us for a Dam, discourages one from plans to build larger.

On the 1971 market our calves sold for average of \$175.00 per head, our yearling steers sold for \$250.00 per head, cows culled from herd as cannors have sold up to \$290.00 a head. Bulls no longer needed for breeding are selling \$400-\$425 on the weigh up market.

To handle this type of an operation we have 3 homes, 1 a 4 bedroom house, 1 a 3 bedroom house, and 1 a 2 bedroom house, 2-Quonset machine sheds, a cattle shed, 100 ft. long, enclosed for calving in snow or rain storms, good corrals and 2 shelterbelts. One is 2640 feet long—285 feet deep, the other 1584 feet long and 100 feet deep. These trees are from 35 to 50 years old.

Our operation as a cow and calf unit is to take all the cattle we can to the sand hills during the summer and fall, and then bringing the cattle back home to the Calamus river and Gracie Creek. Both are spring fed the year round and neither has ever been know to raise over a foot in depth from any prolonged rain of several inches.

A river such as this that only freezes in the very coldest of weather, and the Gracie creek has never been known to freeze, has a value of undetermined value to a rancher in the winter, when his livestock needs warmer water than they can get from drinking out of stock tanks, let alone all the trouble and work removing the ice each day from the tanks so their cattle can drink.

I am sure you can understand we get more weight on our cattle, from being able to drink warm water in the winter, compared to men whose cattle have to drink from an ice cold water tank.

We have 150 acres of alfalfa on the second bench or level of the Calamus river, which in normal years produces 2 to 3 ton of alfalfa per year, this along with the good river/bottom hay meadows and what hay we get from the upland, produces all the hay we need to feed our cattle and horses besides selling some to neighbors.

This must sound to you gentleman, that ranching is all roses, but on the other side of the ledger, we spend many dollars, for gasoline, diesel fuel, propane gas. Salt, mineral, protein feed, Electricity, grain for the livestock, Real Estate taxes, Personal taxes, Labor, Groceries, Machinery of all types, used in ranching, Automobiles, trucks, Veterinary services, and medicine for cattle, plus the big item of interest on borrowed money which is now between 7½ to 8½%.

If you gentleman vote to put in the Dam on the Calamus, we will lose 840 acres of deeded land, on which all our buildings, corrals and shelterbelts are located, plus 120 acres of rental land. In all 960 acres, right in the heart of the ranch, will be under water, which we can not replace, under any condi-

tions. Losing this portion of the ranch is comparable to losing the yolk and white out of an egg. All we will have left is a shell.

A ranch without buildings, corrals, hay ground and trees is practically useless, unless one wants to be a suit case rancher, here in summer, and gone the rest of the time. Our only means of using what would be left of our ranch, would be to take in cattle for summer range, which greatly reduces the income of the ranch, the area he lives in, and to the community as a whole.

Also on this ranch, as well as all those that may be covered with water, are many deer, game of all kinds, such as pheasant, prairie chicken, Grouse, Quail, many types of song birds, Squirrels, rabbits, and etc.

In the river are many muskrat, Beaver and good fishing.

Our story applies also to all those below us, who also will be flooded out of their homes, their ranches and forced to become members of the urban Society of some city.

Any of the ranchers who loses their homes, buildings, shelterbelts, hay ground, etc. will have left a portion of their land whose value in dollars will be decreased from $\frac{1}{4}$ to $\frac{1}{2}$ of its market value.

This seems very inconsiderate to good cattle country, where the demand for red meat is continually on the increase, while the price of corn and other grains are cheaper, because of irrigation, fertilizer and good farm management, already in practice.

I can not see how any one can justify building many miles of large canals and laterals, to irrigate more farm land up to 100 miles from the Dam. Think of the evaporation that will occur on a hot windy day, besides the hundreds of acres of good productive land that will be destroyed so a canal can carry this water. Think of the farmer who will have to turn his four row machinery around on pointed rows, when this canal cuts his land into from N.W. to S.E. or any other direction.

STATEMENT OF LLOYD GEWEKE, VALLEY COUNTY, NEBR.

Mr. Chairman and Members of the Subcommittee: I am the owner-operator of 2,080 acres in Enterprise Township of Valley County, Nebraska. The NW $\frac{1}{4}$ 22 W $\frac{1}{2}$ 5-18-14 lays within the boundaries of this Twin Loups Irrigation District. I have lived in this area all of my life. My irrigation experience dates back to 1939, which was the start of the North Loup Rural Public Power and Irrigation District. My dad and I owned and operated 320 Class I acres under that project. Through the years each of us served on the Board of Directors of that District.

The original contract for water from the NLRPPI District was \$2.50 per acre. Later, \$2.50 per acre was added for repair and maintenance. Using and working with this open ditch project for the past 30 years has proven to me that projects of this type are not satisfactory or feasible. Each of the two quarters mentioned above has irrigation wells operating at the present time to supplement the open ditch project.

In the fall of 1954 we drilled our first irrigation well on the north line of NW $\frac{1}{4}$ of Section 22. This well was 405 feet deep and test pumped over 900 gallons per minute from 190 feet. For a number of years we irrigated 300 acres of this land from three 80 rod sprinkler lines, moving pipe by hand once or twice a day.

In the early 1960's, with hired help harder to find, we decided to level some land and gravity irrigate all we could, farming the rest as dry land.

We leveled 95 acres at a cost of \$110.00 per acre. The well we drilled in 1954, mentioned previously, handles the water needed for these 95 acres. This well is pumping just as much water or more today, as when new.

I drilled my second well on the north side of the SW $\frac{1}{4}$ of Section 15 18-14 in 1966. We leveled 45 acres in the NW $\frac{1}{4}$ of Section 15 at a cost of \$2200 and parallel bench leveled 60 acres in SW $\frac{1}{4}$ 15 at a cost of \$8280. This well, being a larger capacity well of over 1,000 gallons per minute, handles the water needs of these 105 acres easily. Although we have leveled 200 acres of land at a cost of over \$20,000, it would be impossible to irrigate from an open ditch. All the water is handled under low-pressure through gated pipe to irrigate the 210 acres.

The above described ground, according to Bureau of Reclamation maps, is all Class II land, with the exception of a few Class III acres.

The cost of operating my first well on the NW $\frac{1}{4}$ of section 22 18-14 for the year 1971 was as follows: \$365 for natural gas, \$300 for depreciation on

motor, \$370 depreciation on well, \$25 for oil, making the average cost of water \$11.15 per acre, while delivering 300 acre feet of water to my land. The cost in 1971 was a little higher than in 1970 because of being extra dry.

Well number two, on the SW $\frac{1}{4}$ of Section 15 18-14, is powered by an electric motor. The electricity cost \$842.76 for the year 1971, plus depreciation of \$380, making the average cost of water \$11.64 per acre, while delivering 3.06 acre feet of water to 105 acres of land. Again the cost is higher because of the extra dry year. I have records proving the water costs quoted are higher than any previous year.

The already two-year old estimated cost of \$10.60 per acre for 1.51 acre feet of water by the Twin Loup Reclamation District is more than twice as high per acre foot of water than the system I am now using.

The more modern type of irrigation in our area, where underground water is so abundant, is the new pivot system. Working this system with sprinkler line makes the irrigation of a large amount of acres possible from one well.

The map from U.S. Department of Agriculture Stabilization of Conservation of Sec. 33 18-14 shows how sprinkler and pivot systems are doing the job. The south half of Section 33 is owned and irrigated by one man. He irrigated 145 acres by sprinkler lines and 130 plus by pivot, all with high pressure. It cost him \$1,416.17 for natural gas, electricity and depreciation for 117 days irrigation during which he applied 1.4 acre feet per acre to 275 acres at a cost of \$5.15 per acre.

The Bureau of Reclamation Irrigable acres map shows 64 acres irrigable on NE $\frac{1}{4}$ of Section 33. The owner is irrigating 147 acres by tow line system. The NW $\frac{1}{4}$ of Section 33 shows 85 irrigable acres. A new well and pivot system just installed will irrigate 130 acres. The progress of irrigation within the boundaries of the Twin Loup Reclamation District in Valley County is moving so rapidly that, with the already 140 plus wells irrigating 18,000 plus acres, I feel very certain a ditch system would be disastrous to the land owners and operators in this area.

It doesn't seem feasible to spend 74 $\frac{1}{4}$ million dollars plus over 19,000 acres of land in fees and easements, to irrigate 52,000 acres of which a vast amount is already being irrigated. The Reclamation Bureau figures 65 miles of main canal in our area. In this same area, the canal will cross 35 quarters of already developed irrigated land. Can you imagine the loss and inconvenience to these land owners?

Because of the rolling and hilly terrain, the 105 miles of laterals in Valley County in this Reclamation District will cut the already developed land into patches not suitable for our modern type equipment. In my particular case, the NW $\frac{1}{2}$ of Section 22 and the SW $\frac{1}{4}$ of Section 15 18-14, which are fully developed, will be cut into three patches. One lateral $\frac{1}{4}$ of a mile long (crossing this good, already irrigated ground with underground pipe installed, a well developed building site, and feed lots) will take water to ONLY 17 undeveloped proposed acres in this project.

Another $\frac{3}{4}$ mile lateral, crossing these same two quarters, will deliver water to 23 acres of undeveloped proposed irrigated land. The third lateral, $\frac{1}{2}$ mile long, crossing these same two quarters, takes water to 50 acres of undeveloped proposed irrigated land. This is a true example that shows how treacherous this kind of project can be to our area.

I have cards signed, in the last three weeks, by the land owners representing 27,000 acres that lay within the boundaries of this district in Valley County, indicating that they do not want to contract water from this District. I feel that the \$10.60 estimated cost for 1.51 acre feet of water delivered is so high that most of the land owners in the entire district will not want to sign a fifty year contract for water.

The cost benefit ratio is based on a hundred year analysis at a 3 $\frac{1}{2}$ discount rate. If you figure interest rates at a more practical percent such as five or six percent, the cost ratio would be so far out of line that the project would no longer be feasible.

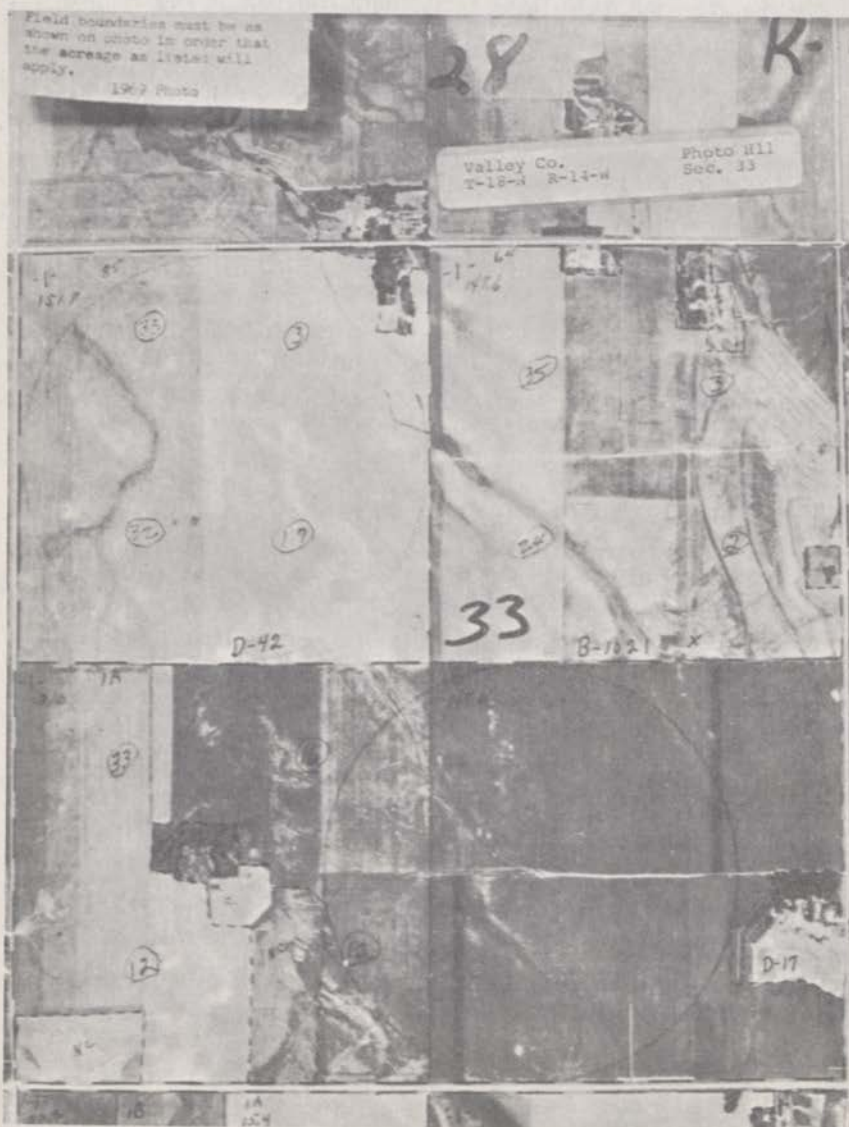
It is estimated in the Benefits Summary that total irrigation benefits are a little over \$3,800,000. It is also estimated about 70 to 75% of our crop is corn. If that is true and I will not question the 70 to 75% figure, we should benefit about \$2,800,000 from raising corn on the 52,000 acres of proposed irrigated land. The truth is, gentlemen, if we raised corn to sell on the open market the last ten years, due to cost of production, we would not be able to survive. The only way a farmer can make \$1.00 bushel corn pay off is the raising and feed-

ing of livestock. That, gentlemen, is our major industry. In fact, more than 75% of our crops are feed to livestock in one way or another.

I have a statement from the Treasurer of Valley County showing what has been collected in taxes from 1955 to February 29, 1972 for Twin Loup Reclamation District. We feel this \$44,265.80 has been a wasteful expense for a needless and unfeasible project.

Attached are A.S.C. photos of NW $\frac{1}{4}$ 22 W $\frac{1}{2}$ 15 18-14 and Section 33 18-14. I have referred to in my statement.

Gentlemen, it is with all sincerity that I make this plea to you—to reconsider the proposed project. I have lived all my life in this area, and love this land of ours more than words can tell. We are only here on this earth a short time, and I feel that it is our duty to try to improve the land and our country whenever possible. Please do not approve a project that will scar the land that we have spent our entire lives trying to improve.



OFFICE OF TREASURER OF VALLEY COUNTY,
Twin Loups Reclamation
Ord, Nebr.

Collections:

1955 levy	\$1, 873. 22
1956 levy	1, 850. 48
1957 levy	1, 775. 79
1958 levy	2, 506. 22
1959 levy	2, 790. 24
1960 levy	2, 594. 04
1961 levy	2, 702. 62
1962 levy	2, 770. 92
1963 levy	2, 856. 04
1964 levy	2, 786. 46
1965 levy	2, 891. 71
1966 levy	1, 745. 27
1967 levy	1, 853. 64
1968 levy	2, 236. 84
1969 levy	2, 340. 27
1970 levy	4, 446. 41
1971 levy ¹	1, 647. 45
Back taxes	990. 04
Motor vehicle	1, 360. 63
Interest	247. 51

Total collections from November 1956 to Feb. 29, 1972	44, 265. 80
Less:	
Refunds	5. 94
County fees	248. 94
Twin Loups	43, 400. 00
Total disbursements from November 1956 to Feb. 29, 1972	43, 654. 88
Valley County Treasurer's balance Feb. 29, 1972	610. 92

¹ Collections to Feb. 29, 1972.

SHARON L. FOTH,
Valley County Treasurer.

STATEMENT OF CLIFFORD GOFF, BURWELL, NEBR.

Mr. Chairman, and Members of the Subcommittee: We, the Clifford Goffs, would like to voice our objection to this proposed "Twin Loup" Irrigation Project.

We live on a farm on the south side of the North Loup River, three and one half miles west of Burwell. This is a good productive river-bottom-land valley and is served by the North Loup irrigation project, also by irrigation wells.

We have an irrigation well, and we prefer it very to the ditch water. We find we get about twice as much water out of our well as we got from the ditch, as we were served by the ditch prior to 1955. We pump with electricity and it doesn't cost as much as the water from the ditch cost.

Our objection to the project is that it will cut across our irrigated farm. We already have the North Loup ditch cutting across us, also an old ditch that was put in about seventy years ago. This old ditch was never used very much as it was so poorly engineered and constructed as to be of little use.

We do not feel this new "Twin Loup" project is at all practical or necessary, or feasible as we are very well acquainted with the land that is to be irrigated. The land is much too rolling—hilly—the water will have to be pumped to water it. There are many farms which are already watered from wells. Many farms have, by means of several wells, many more acres watered than could ever be done from a ditch.

We feel this is the only practical way to irrigate. We have been irrigating for thirty-eight years, and we know that this land won't irrigate from an open ditch.

We are asking you to investigate very thoroughly the merits of this project, and to have enough of this land signed under contract to secure the repayment of this loan before granting it.

STATEMENT OF ROBERT SCHRUP, MEMBER, LOUP COUNTY BOARD OF COMMISSIONERS

Mr. Chairman and Members of the Interior and Insular Affairs Subcommittee on Irrigation and Reclamation: My name is Robert Schrup. I am a member of the Loup County Board of Commissioners and have served in this capacity for the last 10 years. I am appearing before this subcommittee as a representative for all the Loup County Commissioners and for Loup County.

The reservoir on the Calamus River which is a part of the North Loup Project, together with other land taken by the district, will cause Loup County to lose more than 10,000 acres. This land will not only cost eighteen families to lose their means of livelihood but will no longer be available to Loup County for tax purposes. The value of the 10,000 acres for tax purposes is set at \$423,570, personal property \$324,573, and buildings \$40,760 making a total of \$788,903. However, we feel that if this 10,000 acres was sold as one unit the asking price would be over \$200 an acre.

It is estimated that the tax loss to Loup County per year, figuring the present mill levy would amount to approximately \$7,600. It is to be remembered that this loss will continue from year to year, indefinitely. Loup County Board of Commissioners have been besieged with numerous objections from a great percentage of the citizens of Loup County, specifically objection to said project for the following reasons:

1. The loss from its tax rolls of a large amount of property, adding to the difficulty of providing suitable governmental operation for its citizens.

2. Loup County will receive no economic benefit of any nature, while it will from year to year lose a substantial amount of tax income.

3. Loup County has had no opportunity to express its desires relative to said project and especially to cast a vote for or against it.

4. It is the firm belief of the Board of County Commissioners that said project is not feasible, but will if promoted create a burden on Loup County and all land owners in the District.

5. That Petitioners have been circulated opposing said project, in which owners and operators of more than two-thirds of the land in Loup County oppose the completion of said project, and appeal to Congress to prevent the North Loup Reclamation District from being approved.

6. The Board of County Commissioners in regular session on March 13, 1972, adopted a Resolution requesting that the above project be discontinued and fully abandoned, a copy being attached to this statement.

RESOLUTION—COUNTY BOARD OF COMMISSIONERS OF LOUP COUNTY

Re: HR 869 and S 2350 to authorize the Secretary of Interior to construct, operate, and maintain the North Loup Division, Missouri River Basin Project, Nebraska, and for other purposes, and the environmental statement with reference thereto:

Whereas, the Interior and Insular Affairs Committee, House of Representatives, 92nd Congress, has scheduled hearings by the subcommittee on Irrigation and Reclamation. Whereas, these bills authorize the construction of the North Loup Division of the Missouri River Basin Project in Loup, Garfield, Valley, Greeley, Howard, Merrick and Nance counties in Nebraska; and whereas, the United States Department of Interior, Bureau of Reclamation has requested comment as to the Environmental Statement.

Now therefore be it resolved that the Loup County Board of Commissioners in meeting assembled on the above date, passed this Resolution opposing this project and the Environmental Statement and asked Congress to reject the above bills for the following reasons:

1. That many parts of the North Loup Project affect peopple who are not within the boundaries of the District, have no right to vote or be heard thereon, and that they will be adversely affected if said project is constructed.

2. The construction of this project will cause tremendous damage to many property owners which property is some of the best agricultural and cattle grazing land in the United States.

3. That construction of this project will in effect completely destroy all possible cattle ranging in the entire Calamus Valley which affects thousands of acres of grazing land and many thousand head of cattle and will in effect take away complete cattle operations on lands not within the boundaries of the North Loup Project by taking away all effective means of operation and continued operation of said ranches without representation and without any compensation whatsoever.

4. That thousands of acres of land which has high valuation, will be taken from the tax rolls. This will necessitate raising the taxes on other property in the county to make up for the land taken out and income from said land taken or condemned by this project will be lost forever as far as the taxing authorities within the county are concerned.

5. There will be much damage to other land than that taken for ditches and reservoirs. Canals run on curved and diagonal courses for many, many miles which cuts farms and completely destroys irrigation presently being used by landowners within the district and all land within the District will be subject to damage by seepage.

6. That the Environmental Statement is inadequate and false in that there will not be economic activity totaling \$36 million in that development has already been made by the farm community and damages from seepage, severance, and inundation of all irrigable and usable hay area in the Calamus Valley completely destroying ranches along the valley.

7. That destruction to the Calamus Valley will cause further migration of people to urban centers because of complete destruction of ranches in the Calamus Valley area rendering them completely worthless.

8. That the fluctuation of the Calamus reservoir because of irrigation needs and the required flow of the Calamus and North Loup in July and August will render the Calamus reservoir area completely unfit and unusable for recreational development.

9. That destruction of all trees, windbreaks and shrubs in the Calamus Valley because of the reservoir will destroy all natural habitat for present wild life which will never return and probably die.

We ask the Bureau of Reclamation and the Subcommittee on Irrigation and Reclamation to protect us against the injustice and that the Project be discontinued immediately.

Signed :

GLEN POLLARD,
FLOYD DUNBAR,
ROBERT SCHRUP,

County Commissioners of Loup County.

Attested by :

H. R. TONACK,
County Clerk.

Senator BURDICK. Our time is running out and we have four or five witnesses left. I may have to be on the floor and some may have to give their statements before staff.

Is there anyone in this group that would like to file a statement and make a quick summary? Miss Doris Gates, Miss Mary Carter, Mr. Kenneth Cook, Mr. Carroll Harmon.

Mr. HARMON. I am Carroll Harmon, sir. I would like my statement made a part of the record.

Senator BURDICK. It will be, that is very fine, thank you.

What about Doris Gates?

Miss CARTER. I am Mary Carter, Miss Gates was unable to come.

Senator BURDICK. Tom Eason.

**STATEMENT OF TOM EASON, LOWER LOUP-PLATTE WATER
ASSOCIATION, INC.**

Mr. EASON. I am Tom Eason. I live in Dodge County. I will be very brief.

We feel in our area that the project as outlined is going to be very suitable for our area, we think our interest is protected. We support the project. I also represent the Governor on the State's oil and water conservation commission and I think from the State's angle, this is or has been developed as a part of the overall State comprehensive water plan which is a good plan and a lot of planning has gone into it. I would urge that decision in this regard and other regards on the project be made as soon as possible because there is a predictable amount of water in Nebraska, because it is hard to build a plan or anything of future projects unless you know where you stand on one particular project.

A lot of these things brought up today, probably not many of these would have arisen if your time element had not been so long in the planning and the execution of the program.

Senator BURDICK. Mr. Eason, do you have a title in the Lower Loup-Platte Water Association?

Mr. EASON. No, sir. I am the director.

Senator BURDICK. Who are the members of the association?

Mr. EASON. We have representatives from the towns of North Bend, Rodgers, Valley, Fremont, that area is represented by the Lower Loup and the Platte River.

Senator BURDICK. You don't pretend to represent the views of the city—

Mr. EASON. I represent primarily agricultural industries.

Senator BURDICK. Thank you, sir.

Now, Miss Carter.

STATEMENT OF MARY CARTER, CITIZEN, OMAHA, NEBR.

Miss CARTER. I guess I am here representing a minority. I will be brief. My name is Mary Carter, I am a student, I am a citizen of Nebraska, I have lived in Omaha all my life, I have traveled around the State all my life, and I can't quite comprehend the need for a dam project. I think that progress is nice, but when progress has already happened a lot in that area, why be redundant and destructive while you are doing it.

Primarily I am interested in the environmental aspects. I am an environmental-type student. Although I don't know a whole lot right now. I would like to go over a couple of things. Hybridization really occurs. This is where east meets west. You can't put a cost on that, but it should be considered in the whole realm of things. There is something called the Federal Antiquities Act. That prohibits the construction of the sites, that would destroy sites of archeological value. This is a law and no research has been done by anybody from the Bureau of Reclamation, so I think that it would be nice to find out, you know, so we can abide by this law.

Senator BURDICK. Do you have any evidence yourself of anything in that area.

Miss CARTER. Nothing specific. The whole area of Nebraska is rich in that type of thing, you know, we have found fossils and things. We shouldn't rule out the fact there are some and we should find out one way or another. I would like to stress again the 150 acres of trees that will be destroyed, and it will take at least 100 years to make them come back adequately.

It is kind of interesting about the great blue heron rookery, the fact they won't be able to survive there because the tree roots will be water soaked. It doesn't seem to have been mentioned a lot. It is something that should be taken into consideration. The kingfish requires a place to dig a nest tunnel that overlooks the water. That is how they like to live. This shouldn't be ignored. One thing that no one has talked about, mosquitoes. Because this is free-flowing water and it is not a large reservoir that has shallow water, not many mosquitoes are there. If a reservoir was built a lot of additional nesting places for mosquitoes will be provided. Mosquitoes will have to be controlled by pesticides, which will affect the plants and animals there, and will ultimately affect humans.

Senator BURDICK. What do you say about the testimony that has been offered. It gives a lot of seepage and water runs away.

Miss CARTER. I am not claiming to be an expert. All I am is a citizen that doesn't feel this thing should be done. That is all I have.

Senator BURDICK. Thank you very much.

Mr. Kenneth Cook, director of agricultural development, is he here? If not his statement will be made a part of the record.

(The statement follows:)

STATEMENT OF KENNETH L. COOK, DIRECTOR, AGRICULTURAL DEVELOPMENT,
BURLINGTON NORTHERN, INC.

Mr. Chairman, and members of the Committee: My name is Kenneth L. Cook, Director of Agricultural Development for Burlington Northern Inc., with headquarters at St. Paul, Minnesota. For more than a century, the growing economic development of the West has drawn its principle strength from the fruitful partnership of American agriculture and American Railroads. As Director of Agricultural Development for Burlington Northern—one of the oldest of the granger railroads and today the largest in track miles—I am pleased to submit for the record of this hearing a statement in support of the North Loup Division of the Missouri River Basin Project.

Our faith in the potential of this development is based on solid experience. Burlington Northern, through its predecessor companies, has been directly involved for many years in programs of the type proposed for the North Loup Division. Our record of cooperation in the development of agricultural resources throughout the Midwest and West speaks for itself.

Burlington Northern serves many outstanding agricultural areas in the vast territory linked by our 25,000-mile rail network. Agricultural states include Illinois, Wisconsin, Missouri, Iowa, Minnesota, Nebraska, North and South Dakota, Wyoming, Colorado, Texas, Montana, Idaho, Washington and Oregon. In this richly productive region are a number of the nation's most highly developed areas of irrigated agriculture.

The degree to which irrigation as an economic factor can affect such an area is clearly demonstrated by the changes we have experienced in volume and character of traffic and the revenues generated. These are reliable measures of growth and improvement—not merely for Burlington Northern, but for the communities and businesses we serve.

The destinies of these communities are intrinsically linked with our own, and I can think of no better way of intensifying the agricultural economy or stemming the migration from rural America than through irrigation development. This is particularly significant to a state like Nebraska, which already is heavily agriculture-oriented.

Any of the irrigated areas we serve might be used as an example of how investment in irrigation has brought with it investment in plant and facilities and general economic growth. However, because of my familiarity with it, I would like to refer to the Columbia Basin Project. Some of you, of course, are acquainted with it also, and I believe it will be easy to illustrate the salient points I would like to make.

Burlington Northern operates 172 miles of line in the Columbia Basin Project, the most recent irrigation development on our railroad. Before 1952, we served only a handful of country elevators in the entire area—all that was needed for the lesser production of dry farming.

Where there were nine industries handling agricultural production before irrigation, there are now at least 140—an increase of more than 1300 per cent! Obviously, such industrial growth represents a substantial investment by many firms. We estimate that along our lines alone, approximately \$75 million has been invested in facilities to handle products from the Columbia Basin Project. And two other railroads also serve the project. Our business in the area has more than doubled in the past 10 years. The growth since the start of irrigation in 1952 has been of even greater proportions. This is not to say that the North Loup Division will necessarily produce the same spectacular results; yet they will be similar and the industries which will develop are of the same nature. They include sugar beet, potato and dry bean processing, as well as those supporting agricultural production—fertilizer, farm machinery and other products and equipment. These same crops and agricultural inputs are part of Nebraska's agricultural economy today, and will expand with irrigation development.

Burlington Northern presently operates a branchline through the North Loup River Valley. Like many branchlines in Nebraska, it was built before the turn of the century and is generally constructed of light-weight rail. Although the revenues derived from the area have been fairly stable, the costs to maintain and operate the line are constantly rising. The economic improvement of the area which will result from authorization and construction of this project will help toward putting the branchline on a sounder economic basis.

The stakes involved in a project of this scope are high, but the economic benefits are substantial and far-reaching. Irrigation would provide long-term economic stability which would undergird even further development.

Burlington Northern's long years of experience in serving irrigated agricultural regions convinces us that the proposed North Loup Division development is an asset with unique and valuable potential.

Senator BURDICK. That concludes our witness list, you have been very good—Mr. Harmon—

STATEMENT OF CARROLL HARMON, NEBRASKA SOIL AND WATER CONSERVATION COMMISSION

Mr. HARMON. My name is Carroll Harmon, Nebraska Soil and Water Conservation Commission. I am here to present a statement for Mr Vincent Kershaw. I would like to quote part of the letter he has directed to Senator Jackson:

Our office and the University as a whole are enthusiastically supporting the development of irrigation and those projects which have physical and environmental feasibility. We also strongly support the concept of long-term management for the total water resources for urban and rural development. We believe that the North Loup Project is a worthy project. In cooperation with the U.S. Geological Survey, we investigated the potentials for irrigation. As a part of our program we have established and maintained a continuous level of water level changes. Unlike many parts of Nebraska, a large portion of the project lands are underland by limited reservoir, limited by potential storage and potential yield of wells. A relatively large number of irrigation wells have been constructed in the area. As more wells are drilled, as they most surely will be, a competition for limited groundwater storage will lower levels. In fact, records of wells measured in the Valley County portion of the project by the U.S.

Bureau of Reclamation since 1958, indicate this downward trend of water levels have been established in the last 3 to 7 years. In comparison, water levels measured in the fall show declines. A storage of surface water, will help achieve the objective of water resources management and irrigation of downstream use. In the streams for long-term use should be developed with this project. Experience elsewhere in the state demonstrates the tabulation that occurs in rural area with the management that comes with storage facility and total water resources utilization. Experience also shows that problems resulting from——"

I urge your committee take favorable action toward its authorization.

Senator BURDICK. Thank you very much.

Mr. HARMON. If I can answer any questions.

Senator BURDICK. We have a conflict in the evidence about the groundwater levels.

Mr. HARMON. It appears from the work I think that the conservation survey division has done, there is a great deal of difference between this surface area, between the kinds of wells that might be developed in some areas where you got relatively good wells, but in other areas you are not able to develop the kind of well required for irrigation.

Senator BURDICK. What do you say about the cost of the water. It seems that it is going to be twice as costly as the present system?

Mr. HARMON. I wonder in some of the testimony previously presented here, if the entire cost of the wells was included in that \$11 figure for 3 acre-feet pumping, I am talking about the amortization of the wells, the drilling of the well and the equipment required, or if this is only the power cost. It seems like a low figure.

Senator BURDICK. It certainly is a dramatic difference. Well, we will be asking the Bureau for more information also.

Thank you very much.

Now, do you have rebuttal back there in the red shirt?

VOICE. We took in the complete cost not only our gas cost, electric cost, but we also took into consideration we would depreciate our well in 10 years, our motor in 20 years, and we figure it out, the full cost.

Senator BURDICK. You took in all of the necessary and usual business costs and you figured your profits and losses.

Voice. Some days good profits and some days not many.

Senator BURDICK. Thank you very much.

The meeting will be adjourned and the record will be held open for 30 days.

(Whereupon, at 1:05 p.m., the meeting was adjourned.)

(The statement of Dr. Kershaw submitted by Mr. Harmon follows:)

STATEMENT OF DR. VINCENT E. KERSHAW, OMAHA, NEBR.

I am against the North Loup Project because I believe it will be environmentally destructive and economically unsound. I see it as another make work project by a bureaucratic organization with a history of numerous expensive projects which have been insensitive to the actual needs of the people of this country.

I believe it is environmentally destructive for the following reasons:

1. It will degrade the character of the Calamus river which is one of the unique and beautiful rivers of Nebraska. I feel that as a citizen of Nebraska

that part of the Calamus river is mine. I further believe that the Loup and the Platte and the Missouri into which the Calamus flows as partly mine also. I resent the feeling of a small group of Reclamation engineers who feel they have a right to "improve" or modify these rivers and thus take something away from myself and many more like me.

2. It is my understanding that any decisions to continue this project are in violation of the intent of the 1969 National Environmental Policy Act because of incomplete environmental impact study reports.

3. Migrating waterfowl habitat would be destroyed. This is due in part to the destruction of small ponds and creeks with their associated plant life and also to lowering of the water temperature in fall and winter secondary to the storage.

4. Woodland habitat now existing along the river in the area to be inundated would be destroyed. I doubt that ecologically effective woodland in sufficient quantity will be replaced.

5. The network of canals will be a threat to both the animal and human population from the standpoint of drowning particularly to children and deer.

6. The reservoir cannot serve the functions of a natural lake because of the extreme water level functions.

7. The loss of water downstream from the dam in the Calamus, the Loup, and the Platte is in violation of water rights of other landowners.

8. The use of pesticides for mosquito control will affect not only the reservoir but downstream and add to the total load draining into the Gulf of Mexico.

9. It would destroy the nesting habitat of Great Blue Herons and the Belted Kingfishers.

I believe the proposed project is economically unsound for the following reasons:

1. An unrealistic interest rate of $3\frac{1}{4}\%$ has been reported to have been used in the feasibility study. The actual cost of use of the money should have been used.

2. A poll has indicated an overwhelming objection to the project by the farmers in the involved areas.

3. The need for irrigation is being met by central pivot systems in the involved area on a free enterprise system in a manner which is not destroying the land. It is in addition much less destructive to the environment.

4. It is further, it seems to me, an unseemly type of ridiculous behavior to be spending millions to increase certain food commodities at the same time that even more is being spent on taking land out of production.

5. The reservoir and related easements and canals will remove an estimated 19,000 acres from any agricultural production. In my opinion this land will be needed within the next 50 years for food production.

In summary I believe the North Loup Project cannot be justified on an economic basis. If the proposal is carried out it will be the cause of significant local and downstream environmental havoc. In my opinion it will also be testimony to our inability to manage our own welfare.

APPENDIX

(Under authority previously granted, the following communications representative of the many letters received by the committee, were ordered printed in the hearing record.)

STATEMENT OF WILLIAM C. SMITH, JR., ONE OF THE BOARD OF DIRECTORS OF
THE NATIONAL WATER RESOURCES ASSOCIATION

Mr. Chairman, my name is Judge William C. Smith, Jr., of Ainsworth, Nebraska. I am Nebraska's representative on the Board of Directors of the National Water Resources Association. Our Association is proud to support the two projects in Nebraska, namely, the North Loup Division and the O'Neill Unit who are presently seeking authorization. The North Loup Division, sponsored by the Twin Loups Reclamation District and the Twin Loups Irrigation District, is a multiple purpose project that will enhance the social and economic well being of a large part of Central Nebraska.

The National Water Resources Association believes that development and construction of this multiple purpose project is necessary to strengthen the economy of the entire nation, while enhancing the human environment of a seven county area, in Central Nebraska. I am sure you realize that my appearing here before you indicates my complete support of this project. The National Water Resources Association and I are pleased that you gentlemen have granted the local sponsors of the project this time to be heard.

Thank you, Mr. Chairman, and if there are any questions, I shall be glad to answer them.

RESOLUTION—ORD CITY COUNSEL

By the Ord City Council encouraging the Congress of the United States to enact, fund and implement the Twin Loups irrigation and reclamation project at the earliest possible opportunity.

Whereas the Twin Loups Irrigation and Reclamation Project will preserve and improve area water levels essential for human consumption, agriculture and industry, and

Whereas said Project will increase and stabilize farm income to enable Nebraska farmers to conduct economically feasible operations and maintain their basic philosophy that they can and should be self supporting, and

Whereas said Project will provide new jobs in an economically depressed area, and

Whereas said Project will lessen outmigration from Nebraska and consequent overcrowding of metropolitan areas already beset with problems of mass crime, housing, education and sanitation, and

Whereas said Project will improve and stabilize area taxpayers' ability to pay existing, substantial and increasing costs of providing essential roads, improvements and other public services, and

Whereas said Project will conserve and utilize our ecology and natural resources efficiently and wisely, and

Whereas said Project will relieve the energy crisis by reducing the cost of making general and irrigation water available, and

Whereas said Project will provide recreation to thousands of Americans.

Now, therefore, be it resolved by the Ord City Council meeting in regular session this 6th day of March, 1972, that the Congress of the United States be urged to enact, fund and implement the Twin Loups Irrigation and Reclamation Project at the earliest possible opportunity, and be it further resolved that said City Council wholeheartedly and enthusiastically endorse said project

without qualification and deliver a copy hereof to the House and Senate Subcommittees on Insular Affairs and all other interested and appropriate bodies as evidence of said endorsement.

Passed and approved at Ord, Nebraska this 6th day of March, 1972.

ATTEST:

William L. Thompson
City Clerk

CITY COUNCIL

By *John J. Lewis* Mayor
John J. Lewis
John J. Lewis
John J. Lewis
John J. Lewis
John J. Lewis
John J. Lewis

CITY OF ST. PAUL, NEBRASKA,
St. Paul, Nebr., March 15, 1972.

HON. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate,
New Senate Office Building
Washington, D.C.

DEAR SENATOR JACKSON: The City of St. Paul, Nebraska supports the North Loup Project. We know it will provide economic opportunities for a large number of residents of our city and the surrounding area. Howard County and the City of St. Paul, Nebraska both showed a gain in population during the census period from 1960 to 1970. We believe this is the direct result of new results of irrigation development in the Loup Basin.

Development of the North Loup Division will help every community in the North Loup Basin.

Respectfully submitted,

J. J. LEWIS,
Mayor.

CITIZENS NATIONAL BANK,
St. Paul, Nebr., March 15, 1972.

HON. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate,
New Senate Office Building,
Washington, D.C.

DEAR SENATOR JACKSON: The Citizens National Bank is located in St. Paul, Nebraska, in the center of a farming community. Our banking business is closely associated with agriculture. From 1964 to 1970 our loans to farmers and farm related businesses have nearly tripled. We believe this increase in our loan business can be attributed directly to the development of the Farwell Unit here in Howard County, Nebraska.

Making loans to farm operators with irrigation is advantageous to both our Bank and our customers. We strongly support the development and early construction of the North Loup Division as our experience shows that irrigated farming helps create a progressive rural community.

Sincerely yours,

STAN EDWARDS,
President.

RESOLUTION

WHEREAS, the Board of Howard County Nebraska Commissioners has received the draft of the Environmental Statement for the North Loup Division, Pick-Sloan Missouri Basin Program, Nebraska; and

WHEREAS, it appears that authorization of the construction of the North Loup Division would enhance the human environment of the Loup Basin, which river basin includes a part of Howard County, Nebraska; and

WHEREAS, this Board is aware of the favorable environmental activities created by the construction and operation of the Farwell Unit which is located, for the most part, in Howard County, Nebraska.

NOW, THEREFORE, BE IT RESOLVED by the Board of Howard County Nebraska Commissioners, at a special session, assembled this 13th day of March, 1972, that the Environmental Statement proposed for the North Loup Division, Pick-Sloan Missouri Basin Program, Nebraska be, and the same is hereby approved.

Dated at St. Paul, Howard County, Nebraska, this 13th day of March, 1972.

BOARD OF HOWARD COUNTY NEBRASKA
COMMISSIONERS

Myron K. Nielsen
Chairman

Walter L. Thompson
Donald H. Meyer

ATTEST:

Louise Reynolds
County Clerk

It was moved by Gerald A. Hruza and seconded by Clifford Stefanowicz that the above and foregoing resolution be adopted as read. On roll call vote the following voted "Yea": Gerald A. Hruza, Clifford Stefanowicz and Myron K. Nielsen.

This Resolution adopted March 13, 1972.

RESOLUTION

WHEREAS, the Board of Directors of the St. Paul, Nebraska Chamber of Commerce is aware of the social, economic and environmental benefits created by a prosperous agricultural community; and

WHEREAS, all the members of the St. Paul Chamber of Commerce recognize that due to construction of the Farwell Unit, Howard County's population decline has stopped and between the 1960 and 1970 census the County of Howard and the City of St. Paul, Nebraska showed a population gain; and

WHEREAS, the benefits of increased agricultural production will cause a shift of population to rural areas, all of which will be beneficial to all the citizens of the City of St. Paul, Nebraska.

NOW, THEREFORE, BE IT RESOLVED that the St. Paul, Nebraska Chamber of Commerce, through its Board of Directors, does hereby go on record in support of the North Loup Division, Pick-Sloan Missouri Basin Program.

Dated at St. Paul, Nebraska, this 9th day of March, 1972.

The Board of Directors of
the St. Paul, Nebraska Chamber
of Commerce

By M. L. Boath
Its President.

Paul L. Boath
Its Secretary-Treasurer.

OFFICERS

President
Henry G. Lange
Ord, Nebraska

Vice President
Donald E. Kilday
Palmer, Nebraska

Secretary-Treasurer
A. L. Russell
Fullerton, Nebraska

Twin Loups Reclamation District

St. Paul, Nebraska 68873

DIRECTORS

Cushing, Nebraska
Louis Cording

Elba, Nebraska
Carl F. Anderson
Charles S. Augustyn

Elyria, Nebraska
John Potrzeba

Attorney
Cyril P. Shaughnessy
St. Paul, Nebraska

April 12, 1972

Senator Clinton P. Anderson
Chairman, Subcommittee on Water
and Power Resources
Committee on Interior and Insular Affairs
United States Senate
Washington, D. C. 20510

Honorable Senator Anderson:

On March 20, 1972, your Committee held hearings on S. 352 and S. 2350 regarding the authorization of the North Loup Division of the Pick-Sloan Missouri Basin Program. During these hearings, conducted by the Honorable Senator Quentin N. Burdick, certain people from our area requested additional time to submit information. Senator Burdick also allowed us the same time to furnish additional statements for the record. This letter and its enclosures furnish this additional information.

First of all, many of the elected officials including our Honorable Senators from Nebraska, Senator Roman L. Hruska and Senator Carl T. Curtis, Congressman Dave Martin, the Honorable J. J. Exon, Governor of our State, several city councilman and mayors, as well as county supervisors and State senators, have all endorsed our project for development. These are all elected officials and are very sensitive to the needs and wishes of our local people. We believe these elected officials are sincere in their sponsorship of the North Loup Project because they are convinced there is local support in our area for this development.

To further support the contention of local development, we have circulated petitions among farmers who are owners and/or operators of the 52,570 acres of land in our project. 406 signatures have been obtained on the attached petitions supporting the development. These people represent 60% of the lands to receive service from the North Loup Project, or acreage wise, 30,760 acres.

79-704 222

OFFICERS

President
Henry G. Lange
Ord, Nebraska

Vice President
Donald E. Kilday
Palmer, Nebraska

Secretary-Treasurer
A. L. Russell
Fullerton, Nebraska

Twin Loups Reclamation District

St. Paul, Nebraska 68873

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John Potrebbe

Attorney
Cyril P. Shaugnessy
St. Paul, Nebraska

Page Two

Senator Clinton P. Anderson
April 12, 1972

When our Twin Loups Irrigation District was formed in 1958, there were 16,819 acres of irrigated lands. Owners of 7,602 acres petitioned into the irrigation district leaving 9,217 acres. Owners of 3,980 acres of these 9,217 acres desire project service. Since 1958, owners of 43,353 acres have been in the Twin Loups Irrigation District. Adding the 3,980 acres now desiring project water, brings our service area to 47,333 acres or within 10% of the total of 52,570 acres within the project. As mentioned above, these people who are irrigating with well service are still very much interested in acquiring project service. So, we believe we have no problem in developing the total potential of our area.

Should some of those whom we have not been able to contact, decide against project service, there are ample lands in this area to develop the total potential of the project. The problem in our area is not land but one of a sufficient water supply.

Mr. Thomas Tye at the March 20, 1972 hearing, suggested an amendment to our bill that we must have signed water contracts with individual water users for the 52,570 acres. Attached in greater detail is an explanation of the difference between an irrigation district and a reclamation district. Suffice it to say here that an irrigation district in Nebraska can obligate the owners of the land within the district to the repayment of our contract with the United States. Thus, there is no need for nor would such an amendment serve any useful purpose and accordingly, there is no need for the individual water-user contracts for our development.

Mr. Vincent Dreeszen, Director of Conservation and Survey Division, University of Nebraska in Lincoln, Nebraska, furnished you a letter on April 5, 1972 which amplified his previous statement. The water table is declining and there is need for

WATER — THE KEY TO LOUP BASIN'S AND NEBRASKA'S PROSPERITY

OFFICERS

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Twin Loups Reclamation District

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Elba, Nebraska
Carl F. Anderson
Charles S. Augustyn

Elyria, Nebraska
John Potrzeba

Attorney
Cyril P. Shaughnessy
St. Paul, Nebraska

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conjunctive use of water in our area.

Some of the environmentalists at our hearing on March 20, 1972, indicated that the Calamus River had some potential for canoeing. We would like to point out, as is done in one of our attachments, that all the land along the Calamus River is in private ownership. Thus, any canoe in order to get to the Calamus River must trespass. However, with the development of our project, the Calamus River would be abutted by public roads and would be open to everyone. So, there will be an opportunity for everyone to use the area.

At the hearings March 20, 1972, there seemed to be conflicting statements regarding people who live in the reservoir area. We have included a resume of the attitudes and conclusions of more than a majority of the people living in the reservoir area.

Messrs. Geweke, and Blessing indicated that 1½ acre-feet at the farm turnout was insufficient for crop production in the North Loup Division area. This is contrary to the findings of actual experience on the Farwell Project which is just a few miles from the North Loup Division area. The attachment indicates that maximum water per acre delivered to the farm turnout was only 1.29 acre-feet in 1971. Granted that 1½ acre-feet is an average figure, but we feel it is more than sufficient to produce optimum crop yields.

Attached is a list of irrigation wells that are in the Sargent Unit service area. Lands ^{are} of the Sargent Unit and those of the North Loup Division area at one point within four miles of each other. Operators of nine of the wells have not used the well since project water became available while nine more operators use the well only for off season irrigation.

Based on the experience gathered from the use of wells in the Sargent Unit, we believe that many of the well irrigators will want a project service.

WATER — THE KEY TO LOUP BASIN'S AND NEBRASKA'S PROSPERITY

OFFICERS

President
Henry G. Lange
Ord, Nebraska

Vice President
Donald E. Kilday
Palmer, Nebraska

Secretary-Treasurer
A. L. Russell
Fullerton, Nebraska

Twin Loups Reclamation District

St. Paul, Nebraska 68873

DIRECTORS

Cushing, Nebraska
Louis Cording

Elba, Nebraska
Carl F. Anderson
Charles S. Augustyn

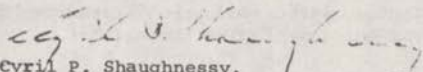
Elvira, Nebraska
John Potrzeba

Attorney
Cyril P. Shaughnessy
St. Paul, Nebraska

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In summary then, we believe we have the united support of our Congressional Delegation, the representatives of our State and Local Government, and our local people. We are confident that by reason of the existence of the Twin Loups Reclamation District and the Twin Loups Irrigation District, we have the necessary legal entities to respond favorably to the necessary repayment contracts between the United States and our District, the lands and the people to support and pay the obligations due the United States. We sincerely believe that as a result of the untiring efforts on the part of many people living in the area these past 18 years who have worked so diligently to obtain authorization of the project that at this time your Committee will see fit to act favorably on the North Loup Project. We are grateful for the opportunity to provide this additional information concerning the North Loup Project. We thank you for your time and consideration.

Respectfully submitted,


Cyril P. Shaughnessy,
Attorney for the Twin Loups Reclamation
District and the Twin Loups Irrigation District.

For: Senator Clinton P. Anderson
Chairman, Subcommittee on Water and Power Resources

Refer: March 20, 1972 Hearings on S.352 and S.2350 to
authorize the North Loup Division, Nebraska,
Pick-Sloan Missouri Basin Program

Item 1--Explain irrigated lands within the Twin Loups Irrigation District
as of 1958 and 1971.

When this irrigation district (a political subdivision of the State of Nebraska) was legally formed in 1958, it specifically included 43,352 acres of the 52,570 acres to receive project service--35,751 acres of irrigable lands and 7,602 acres of irrigated lands whose owners individually petitioned project service. About 3,700 acres of the other 9,217 acres of irrigated lands (52,570 - 43,352) pump irrigation water from rivers and streams and thus, could not be expected to give up their existing water rights until another source of irrigation water was at hand. Many owners of 5,517 acres of irrigated lands (9,217 - 3,700) told us to come and see them again after our project is authorized and ready for construction.

At the end of 1971 season about 12,130 acres of 35,751 acres of irrigable land had developed a well-water supply and had become irrigated since its irrigation district was formed in 1958. These lands are still within the irrigation district and subject to any repayment contracts the district officials execute.

We have contacted farmers, owners and/or operators of the irrigable land in our project. Of course, in the limited time for the survey it was impossible to contract nonresident owners and those out of the community for one reason or other.

406 signatures of individuals favoring the project signed the attached petition. This represents more than 70 percent of the qualified voters of the Twin Loups Irrigation District.

30,760 acres - Owners and operators still want project service.

3,980 acres - Owners of land not in the irrigation but want project service. These lands are a part of the 52,570 acres, but did not originally petition into the Twin Loups Irrigation District.

There are 43,353 acres of project lands now in the Twin Loups Irrigation District. These lands can be committed to any repayment contracts. Another 3,980 acres of land (a part of the project's 52,570 acres) signed the attached petition as wanting project service. Thus, as of this writing, 47,333 acres by reason of the irrigation law of the State of Nebraska can be committed to the district repayment contract.

Should the remaining 5,237 acres elect to stay out of the project the owners of many other acres of land will welcome the opportunity to have the service. Irrigation service to 52,570 acres of project lands can be served without reservation.

Item 2--Explain difference between Nebraska irrigation and reclamation districts--

An irrigation district in Nebraska is a political subdivision of the State. To form one requires petitions to a county board with landowner signatures of more than half of the land and half of the owners. After favorable county board action, an election for formation of the district must be held. All the owners of irrigable land in the district who live in Nebraska are electors. More than half of the votes cast must favor district formation to have the district officially formed.

At the Twin Loups Irrigation District election in November 1958--

For	198
Against	95

In Nebraska, the elected officials of an irrigation district can make and collect levies and tolls against all of the lands within the district. Unpaid water bills are a lien on the land, the same as any other unpaid taxes. This has been proven many times in Nebraska's courts.

The United States through the Secretary of the Interior and the Bureau of Reclamation has many active repayment contracts with Nebraska irrigation districts in the North Platte, Republican, Loup and Niobrara River Basins.

Thus, there is no need to have individual water contracts with landowners for the development of the North Loup Division.

A reclamation district in Nebraska is a political subdivision of the State with primary objectives of including all of the beneficiaries within the project area and of collecting revenues from more than just the water users of a development. With a favorable vote of the electors living within the district, its elected officials may levy and collect an ad valorem tax on all property within the district--up to one mill of assessed valuation prior to the delivery of water and two mills after water delivery. With minor exceptions, its other taxing powers are limited to contracts with taxing bodies (irrigation districts, municipalities, etc., and individual water users).

The Twin Loups Reclamation District vote was held August 10, 1954:

<u>For</u>	<u>Against</u>	<u>Total</u>
735	307	1,042

71 percent	29 percent
------------	------------

We expect that the Twin Loups Irrigation District and Twin Loups Reclamation District will each have repayment contracts with the United States. The two districts will have contracts with each other.

Such contractual arrangements have been executed and operate effectively among the United States, the Sargent and Farwell Irrigation Districts and the Loup Basin Reclamation Districts in our area of the Loup River Basin.

Item 3--Are other lands available to take project service should some of the 52,570 acres of land drop out of the project?

Yes--many acres of excellent quality land.

Chapter 11, page 147, "Alternative Arable Lands", of H.D. 491 lists several alternative areas that have land suitable for project service. One of these alternative areas is near North Star and it contains 4,000-5,000 acres of high quality land.

Center pivots and sprinkler irrigation today offers many opportunities to pick up other lands, should such a need develop. Some of our directors now have sprinkler systems on project lands that irrigate more land than described by the Bureau land classification surveys of the late 1950's.

In our area, there is more land than water. Irrigated agriculture is the way to survive in our part of Nebraska.

Item 4--The North Loup Division has the support of the elected officials of cities, counties, the State and the Congressmen and Senators from Nebraska.

Officials of towns from Burwell, Ord, St. Paul, Columbus, and Fremont have supported our project.

State Senator Kokes of the 41st District and Senator Nore of the 22nd District have spent considerable time showing their support of the project.

Each of Nebraska's governors since 1959 has tried to advance the North Loup Division. The present governor, J. J. Exon, has said that Nebraska must have projects such as the North Loup if the State is to keep a stabilized economy and population.

Senators Roman Hruska and Carl Curtis and Congressman Dave Martin have consistently backed the project and are continuing to support us.

The Legislature of Nebraska has twice passed unanimous resolutions requesting the Congress to authorize the North Loup Division.

Directors of the Twin Loups Reclamation District and Twin Loups Irrigation District have been elected since 1954 and 1958 respectively, and always by a large majority.

We believe that we have the support of the elected persons at all levels of government and we further believe, that these elected officials are sensitive to the needs and wishes of the local people.

Item 5--Public Access to Calamus River

Access to the Calamus River for recreation, fishing and hunting, is through land owned or leased by farmers and ranchers. To avoid trespass violations, permission for entry to the river should be obtained from the owner.

When the original land survey of Nebraska was made in the middle 1800's, streams measuring less than three chains (198 feet) were not delineated from the adjacent land area. As the Calamus River is in this classification, the land survey was made in townships and sections without regard to the river. Consequently, the land where the river is located is not delineated and is bought and sold with the adjacent land.

In the potential Calamus Reservoir area, all land is in private ownership except two sections (1,280 acres) of school land. This is leased to ranchers.

When the Calamus Reservoir becomes a reality, access for the general public will be guaranteed by public roads and publicly-owned land completely surrounding the water surface. Group use areas to be designated for use by Scouts and other organized groups are also a part of the project plan.

Item 6--Water Required for Optimum Crop Production

The question of how much irrigation water is necessary to grow a good corn crop in the North Loup Division can be answered by use of data from the adjacent Farwell Unit.

The soils of both the North Loup Division and the Farwell Unit are highly fertile, the climate and growing season are identical, and the crops grown and methods of farming are the same. Hence, inputs of irrigation water will result in comparable crop yields.

Records of the Farwell Unit show that for the years 1968 to 1971, inclusive, the farm delivery of irrigation water was 1.16 acre-feet (13.92 inches) per irrigable acre. During 1970 and 1971, the water deliveries to farm turnouts were 1.28 feet and 1.29 feet per acre. As the Farwell Unit is still in the development phase and all project lands are not yet irrigated, there was more water available than was required for project use. The Farwell District made available each year 1.25 acre-feet (15.00 inches) for the minimum charge, so the use of water has been no restraint on crop production in the Farwell Unit.

Precipitation at St. Paul was above average for two of these years and below average the other two years. The total average precipitation and irrigation water ranged from 36.4 inches in 1970, to 38.7 inches in 1969. The other two years were 36.8 inches in 1968 and 37.8 inches in 1971. The average irrigated corn yield during this four-year period was 111 bushels per acre.

Records for all of Howard County where the Farwell Unit is located, show that the average irrigated corn yield for 1968-1969-1970 was 109 bushels per acre (data for 1971 is not yet available). The Farwell Unit and Howard County crop yields are taken from data published by the Bureau of Reclamation and the State of Nebraska.

Item 7--Landowners' Sentiment in Reservoir Area

During February 1972, Mr. and Mrs. Neil Fry of Burwell, who are landowners and residents in the proposed Calamus Reservoir area, visited their neighbors to determine support for our North Loup Project. Their petition containing 19 names in support of the project was presented on March 20, 1972 at the hearing for S. 352.

On March 29, 1972, Dr. Glen Auble and Mr. William Schudel, both of Ord, and C. P. Shaughnessy of St. Paul, drove to the home of Neil and Ella Mae Fry. Together with the Frys, we visited their neighbors to determine their attitude in regard to the potential Calamus Reservoir.

As is usually the case, each individual has feelings and beliefs that are his alone. Many of those we contacted offered complete support for the project. Another three couples were elderly people who favored the project but were reluctant to sign a petition for fear of repercussions from neighbors. One couple felt the only way they would receive a reasonable price for their ranch would be to sell to the government for project use. An elderly couple wanted to dispose of their land to their children and believed it would be easier to sell out and share the money with the children, than to try to fairly distribute land to them.

About 920 acres of land within the reservoir acquisition line is State school land on lease to ranchers. The State of Nebraska has consistently supported our project and we have every reason to believe they will continue.

We feel our support in the reservoir area is very good.

Persons living in proposed reservoir areas generally receive few direct benefits so any support from that area is normally unexpected.

In summary, as shown by the attached map and attached copy of the original petition, there are approximately 25 ownerships in the reservoir site. Of this number, 14 ownerships are in favor of the project which ownerships represent an estimated 4,800 acres; and 11 ownerships are against the project which ownerships represent an estimated 5,000 acres.

(Mr. Fry's letter, map and petition with 19 names were retained in the committee file.)

Item 8-- WELLS WITHIN THE BOUNDARIES OF THE SARGENT
IRRIGATION DISTRICT

Clifford Hanna:

Used some as a supplemental supply, mostly before water is in the ditch and after it goes out in the fall.

Marvin Price: Very Seldom

John Troxel:

Used some as a supplemental supply. Has some under pump not in the District but has brought some of this land into the District.

Floyd Slagle:

Used some after first allotment from District is used up.

Carl Rogers:

Never been used since Project water was available.

Omar Johnson:

Has all land under the pump also in the District, uses pump very little.

Ralph Slagle:

Has not used pump since Project water became available.

Roger Fleming:

Supplemental irrigation from pump, some years.

Agnes Monroe:

Supplemental irrigation from pump, some years.

Wilmet Cole:

Supplemental irrigation from well, some years.

Gerald Fellows:

Supplemental irrigation from pump, some years.

Wilber Slagle:

Service was not furnished at construction of Project. Would still like to get under the ditch.

Leland Sweet:

Has not used for several years.

George Semler:

After Project was developed, he sold pump from well.

Steve Smith:

Never uses.

Lee Penny:

Has two wells for 402 acres but brought all land into the District. Never uses wells.

Ray Probert:

Never uses.

Carl Rogers:

Requested some land on a second farm be reclassified as irrigable 2 years ago but due to soil type, was refused. As a result he drilled a well.

ORD, NEBR., April 15, 1972.

Senator CLINTON P. ANDERSON,
*Chairman, Subcommittee on Water and Power Resources,
 Committee on Interior and Insular Affairs,
 U.S. Senate,
 Washington, D.C.*

DEAR SENATOR ANDERSON: At the above hearings, Larry Holcome, Chairman of the Quality Environment Council made a statement relative to the Jaycees. Due to this statement, the Ord Jaycees wanted to clarify their position on the Twin Loups Irrigation and Reclamation District, by submitting their April 13, 1972 Resolution, which supports the Twin Loups Project.

They have asked that I forward this Resolution to you and your Committee and also wanted it noted that they have supported this Project since early 1960 and that they reaffirmed their position again at the Field Hearings, held in Ord, Nebraska on July 17, 1970, by submitting a supporting Resolution from their Organization, at that time.

They have asked that their April 13, 1972 Supporting Resolution be entered and made a part of the Twin Loups Projects Hearings.

Respectfully Yours,

DONALD L. WAGNER,
Director, Twin Loups Reclamation District.

RESOLUTION

By the Ord Jaycees encouraging the Congress of the United States to enact, fund and implement the Twin Loups irrigation and reclamation project at the earliest possible opportunity.

Whereas the Ord Jaycees, upon hearing the facts incident to and particularly the need for and costs of the Twin Loups Irrigation and Reclamation Project finds that said Project will be of service to mankind generally in that said Project will:

1. Preserve and improve area water levels essential for human consumption, agriculture and industry, and
2. Increase and stabilize farm income to enable Nebraska farmers to conduct economically feasible operations and maintain their basic philosophy that they can and should be self-supporting and
3. Provide new jobs in an economically depressed area, and
4. Lessen outmigration from Nebraska and consequent overcrowding of metropolitan areas already beset with problems of mass crime, housing, education and sanitation, and
5. Conserve and utilize our ecology and natural resources efficiently and wisely, and
6. Relieve the energy crisis by reducing the cost of making general and irrigation water available, and
7. Provide recreation to thousand of Americans.

Now, therefore, be it resolved by the general members of the Ord jaycees, meeting in regular session this 13th day of April, 1972, that the Congress of the United States be urged to enact, fund and implement the Twin Loups Irrigation and Reclamation Project at the earliest possible opportunity, and be it further resolved that said Ord Jaycees wholeheartedly and enthusiastically endorse said project without qualification and deliver a copy hereof to the House and Senate subcommittees on Insular Affairs and all other interested and appropriate bodies as evidence of said endorsement.

Passed and approved at Ord, Nebraska, this 13th day of April, 1972.

DALE MELIA,
President, Ord Jaycees.

Attest:

CHARLIE R. KRIEWALD,
Secretary.

ORD, NEBR., April 10, 1972.

Senator CLINTON P. ANDERSON,
Chairman, Subcommittee on Water and Power Resources,
Committee on Interior and Insular Affairs,
U.S. Senate,
Washington, D.C.

DEAR SENATOR ANDERSON: I am Alfons Bonne and am a Valley County farmer living approximately 6 miles South West of Ord and within the present boundaries of North Loup Irrigation & Reclamation District.

I am for bringing surface irrigation water into this new proposed project. However, I am for having all of the laterals buried in pipe instead of having the old type of surface laterals. This also applies to parts of the Main Canal, when it involves already irrigated farm ground.

I would be willing to pay more per acre for water if things were underground.

Very truly yours,

ALFONS BONNE.

STATEMENT OF HENRY G. LANGE, PRESIDENT TWIN LOUPS RECLAMATION DISTRICT

Mr. Chairman: My name is Henry G. Lange and I am President of the Twin Loups Reclamation District. Our district is governed by a board of nine directors. They are all farmers and all have lived in the district for more than twenty (20) years.

Twenty years ago we proceeded to form a Reclamation District by a petition of the owners of 30% of the land in the district. We then held an election in which the people voted a levy of one mill by a vote of 750 to 300 for the purpose of promoting an irrigation project.

Four years later an irrigation district was formed within the bounds of the Reclamation District. This was done by a petition signed by nearly 80% of the people owning irrigable land in the district. An election was then held on the proposition which carried by a majority of 2 to 1.

Twelve years later, in July of 1970, and just preceding a field hearing in Ord held by the House Interior Sub-committee, our Board of Directors polled the people once again to give them an opportunity to reaffirm their commitment to the project. 175 farmers owning land in the district and living here, indicated by signing said statement that they still wanted the project. These signatures are on file with the House Interior Committee.

It is the judgment of our directors that over the years the people have by a substantial majority indicated a patient determination to have this project and are still of this mind today.

Every two years the people have an opportunity to change the Board of Directors if they do not approve the Board's promotion of this project. However, each member of the Board has been reelected for a third term with no one ever filing against him. Therefore we feel we have the solid support of the people of the district.

ORD, NEBR., April 10, 1972.

Senator ANDERSON
U.S. Senate
Washington, D.C.

SIR: I understand that you have continued the hearings on the Twin Loups Irrigation Project.

I would like to take this opportunity to speak for a large number of smaller farmers in the area to be serviced by this Project. We are unable to attend the hearings to support the Project, but would like to have the Committee hear our side of the question.

There are a lot of small farms with some acres that can be irrigated but not enough acres to justify the investment of thousands of dollars for a well. This Project would enable them to irrigate enough acres to assure them of a steady source of feed for their livestock, in an area where, because of the frequent occurrence of summer drouth, feed production is a major problem.

By stabilizing their operations most of these farmers and stockmen will be able to remain on the farm thereby, not adding to the influx of people into the

cities. It will also prevent the larger operator from taking over the smaller farmers which, I believe, is one concern of our Government. By keeping these people on the farm, we will also aid the business man in the small town.

Therefore, I urge you to fund this Project, sincerely believing it to be in the best interests of the entire area.

Very truly yours

H. S. DUVALLE.

ORD, NEBR., April 9, 1972.

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE: As a farmer who is now irrigating with wells, I wish to present my views on the proposed irrigation project. I feel, as do other farmers I have talked to, that an open canal would be objectionable because:

(1) It would cut up valuable farm land which would make it difficult to farm and make inconvenient access to some of the fields.

(2) It would be dangerous to livestock falling in and drowning.

(3) Heavy rains or storms could damage and wash out the laterals and canals.

(4) The wind blows weed seeds and trash into them; also weeds would be growing along the canals.

(5) There would be loss of water due to evaporation and seepage.

A better system would be the use of underground pipe, which would prevent all of this. There are many advantages to the use of underground pipe:

(1) Fields would not be cut up and valuable land would be saved. All the field could be farmed; with our large investment in machinery, we can't afford to waste any part of the field.

(2) There would be no need to build bridges across the canals or laterals. We are losing land to new roads, highways, and housing (just to mention a few) so let us save our land and water right here for livestock and crops. The best beef in the world comes from our area here.

(3) There is a lot less upkeep on an underground water system and a lot of added land can be developed because of the greater pressure in the lower part of the irrigation area.

I have underground pipe with risers where I need water. There is no water loss, and I think this is the best way to irrigate because the same amount of water will go twice as far (irrigate twice as many acres.)

In talking with others who would have the ditch going through their farms, I find their views are as follows: Right of way would be gotten cheaper from them to go underground. An underground system would not stop the circular pivot irrigation which many of us are using now. This would be more satisfactory to us and we feel it would be the right way to irrigate.

With all the progress we have made in machinery and know-how, we can go underground and do less damage to farmers. We can produce more and better food for the American people.

I would appreciate your giving this most serious consideration.

Sincerely yours,

JOSEPH J. BONNE.

THE UNIVERSITY OF NEBRASKA—LINCOLN,
CONSERVATION AND SURVEY DIVISION,
Lincoln, Nebr., April 5, 1972.

Hon. CLINTON P. ANDERSON,
Chairman, Subcommittee on Water and Power Resources,
Committee on Interior and Insular Affairs,
U.S. Senate,
Washington, D.C.

DEAR SENATOR ANDERSON: I had hoped to testify at the hearing on the North Loup Division before your committee on March 20, 1972, as indicated in my letter of March 8 to Senator Henry M. Jackson, Chairman, Committee on Interior and Insular Affairs. Because of a conflict I was unable to appear and wish to request that the letter be made a part of the hearings. Also, I would like to present in this letter additional testimony that I had planned to present orally and request that it be made a part of the North Loup Division hearings.

My strong support for the North Loup Division project is based on the premise that it is a major component of a water-management scheme in the Loup River basin and in Nebraska. When implemented, the project will provide an opportunity to utilize water stored in surface-water reservoirs and in the groundwater reservoir in an integrated use system for long-term sustained yield of water and the products of irrigation.

As you heard in testimony presented at the hearings, a large portion of the acreage proposed for irrigation in the unit is now being irrigated by pumps, largely from groundwater. Investigations that we have made in the area in co-operation with the U.S. Geologic Survey along with data provided from well logs registered with the Nebraska Department of Water Resources show that geological and hydrological conditions vary over the unit lands.

The Valley County portion of the unit is in Mira Valley, an abandoned late Pleistocene river valley system. Mira Valley has many of the features of a major river valley in Nebraska except for the size of stream and coarse alluvial valley fill. Gravels and coarse sands are generally thin or not present. However, the area is underlain by relatively thick fine-grained sands, sandstones, silts and clays with an average aggregate thickness of about 300 feet. No known suitable aquifers occur below these beds known as the Ogallala Formation. Water levels are relatively shallow, ranging from a few feet to about 70 feet. Well depths range from about 200 to slightly more than 500 feet. Well yields are generally good with yields reported in the range of 600 to 1200 gpm. However, drawdowns in many of the wells are excessive, averaging between 100 to 150 feet. Specific capacities are relatively low ranging from 4 to 30 gpm per foot of drawdown. The average specific capacity calculated from registered well data is about 10. As a comparison, specific capacities generally greater than 30 are common for many wells in the state.

Irrigation wells in Mira Valley number about 125 and a large portion of these have been drilled in the past several years. Water-levels have started to decline. Based on our experience elsewhere in the state, we can predict that much of the land that can be irrigated from wells by any of the rapidly advancing technical means will be irrigated within the next decade or two. The additional stress on the groundwater reservoir will result in an increase in drawdowns of wells because of interference between wells and a progressive decrease in well yields. We anticipate that water levels will decline at rates of a foot or more per year. In order to more closely observe changing conditions in the area and to focus local attention and interest in efficiency in use of the available water supply, we are in the process of installing an observation well to automatically record day-to-day and seasonal water-level change.

Elsewhere in the unit there is a greater variability of geology and hydrology than in Mira Valley with parts of the area being more favorably situated and other parts having no adequate water supply without the project. Optimum water-resource management in the down-stream portion of the unit can best be realized there as in Mira Valley by an integrated use of water from stream storage and groundwater storage.

Sincerely,

VINCENT H. DREESZEN,
Director.

NEBRASKA WATER RESOURCES ASSOCIATION,
Lincoln Nebr., March 6, 1972.

HON. CLINTON P. ANDERSON,
*Chairman, Subcommittee on Water and Power,
Committee on Interior and Insular Affairs,
New Senate Office Building,
Washington, D.C.*

DEAR SENATOR ANDERSON: Our association is vitally interested in the hearing on S. 2350 which would reauthorize the North Loup Division of the Pick-Sloan Missouri Basin Program which hearing is scheduled March 20, 1972, at 10:00 A.M. before your committee. Our association at its annual meeting on October 21, 1971, adopted a resolution in support of the North Loup Division which reads as follows:

"Whereas, the well-being of people, their environment and economy, together with the conservation, development and utilization of land and water resources

are vital to the State of Nebraska and the area to be served by the North Loup Project; and

Whereas, the works of the North Loup Division will achieve these objectives by storing the regulating off-season flow upstream for irrigation and downstream uses; and

Whereas, the North Loup Division has been investigated by the Federal and State agencies, has been favorably considered by the Missouri River Basin States, has been recommended by the State of Nebraska, recommended by the Department of the Interior for re-authorization and construction, and is now before the Congress for re-authorization; and

Whereas, the Sub-Committee on Irrigation and Reclamation of the House Committee on Interior and Insular Affairs held field hearings on the North Loup Division at Ord, Nebraska, on July 17, 1970, and received decisive favorable local and State of Nebraska support for the development of the North Loup Project; and

Whereas, before the North Loup Division can have a hearing before the Congress, it is necessary that the Project have a report from the Office of Management and Budget; and

Whereas, the Report of the North Loup Division appears to be "stalled" in the Office of Management and Budget in Washington, D.C.,

Now, therefore, be it resolved, that the Nebraska Water Resources Association commends our Nebraska Congressional Delegation for the efforts they have put forth in behalf of the North Loup Division and urge our Delegation to continue their efforts to the end that authorization of the North Loup Division will be secured at the forthcoming session of the Congress."

I hope that you will make this resolution a part of the record of this hearing.

Your continued support of the project will be greatly appreciated.

Sincerely yours,

DAN S. JONES, Jr.,
President.

GARRISON DIVERSION CONSERVANCY DISTRICT,
Carrington, N. Dak., March 20, 1972.

HON. HENRY M. JACKSON,
*Chairman, Committee on Interior and Insular Affairs,
U.S. Senate,
New Senate Office Building,
Washington, D.C.*

DEAR MR. CHAIRMAN: The Garrison Diversion Conservancy District, a 25-county governmental entity in the State of North Dakota, concerned with the development and operation of the Garrison Diversion Unit, supports and urges the reauthorization of the North Loup Division of the Pick-Sloan Missouri River Basin Program.

We support the full development of the land and water resources of the Missouri River Basin through sound water resources projects, thereby enhancing the economic growth and stability of the Midwest region. We believe that the development of the North Loup Division in Nebraska will contribute to this objective.

We respectfully request your favorable consideration and support of S. 2350 and S. 352 which would reauthorize the North Loup Division.

Sincerely,

VERNON S. COOPER,
Manager.

STATEMENT OF MAX E. KIBURZ, GENERAL MANAGER, LOUP POWER DISTRICT
COLUMBUS, NEBR.

The Loup River Public Power District has owned a water right on Loup River waters since 1934. This right permits them to use 3500 feet per second of Loup waters for the generation of power.

The Loup District serves electricity to Platte, Boone, Nance and Colfax Counties at retail and the economic development of this area is largely dependent on the waters of the Loup River.

There is a dire need for an overall comprehensive plan to provide maximum utilization of the Loup River waters for the benefit of all upstream and downstream interests.

The various interests have agreed to modify the North Loup Project by increasing the storage capacity so that it is not necessary to divert any water during the months of July and August. These months are the critical months as far as low flow in the downstream areas are concerned. I understand that these changes are incorporated in the present bill.

With these changes we feel:

- (1) that this project will add to Nebraska's and our area's economy,
- (2) that this project is the first step in a comprehensive program that will be supported by all interests in the Loup River basin, to make maximum use of the vital resource, and
- (3) that Congress should encourage, promote and fund a comprehensive plan for the development of this river basin.

We respectfully request that this subcommittee give favorable consideration to the North Loup Project.

THE CITY OF COLUMBUS,
Columbus, Nebr., March 16, 1972.

Hon. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate,
New Senate Office Building,
Washington, D.C.

DEAR SENATOR JACKSON: At the Field Hearing held in Ord, Nebraska in July of 1970, Mr. Larry Byrnes, a representative of our City, presented a Resolution recording the support of the citizens of Columbus of the North Loup Division, Pick-Sloan Missouri Basin Program. We, in the City of Columbus, continue to favor the North Loup Project. As Mayor of our City, I wish to take this means to pledge our continued support of the Project.

Respectfully,

BARNEY L. MICEK,
Mayor.

FARMERS NATIONAL CO.,
Omaha, Nebr., March 16, 1972.

Hon. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs
U.S. Senate,
New Senate Office Building,
Washington, D.C.

DEAR SENATOR JACKSON: In response to a letter I received from Mr. Cyril P. Shaughnessy, Attorney-at-Law representing the Twin Loups Reclamation District in Central Nebraska advising that there would be a hearing held in your Office in Washington, D.C. on or about March 21st, 1972 regarding the proposed Twin Loups Reclamation District in Central Nebraska. I am submitting to you the following for your consideration and hopefully approval of the Twin Loups Reclamation District referred to as the North Loup Project.

1. Personally, while living in Scotia, Nebraska in the early 1940's, I worked on numerous committees helping to promote further development of the irrigation in the North Loup Valley from Burwell to Fullerton. This is in line with the now proposed Twin Loups Reclamation District.

2. Personally have promoted and arranged for a meeting at which time the original Board of Directors of the Twin Loups Reclamation District were appointed. (Later these same appointed men were elected from their various areas to serve as the Official Board of Directors for the District.) Most of the original Board of Directors are still active members, a few having been replaced due to death of some of the original Board Members.

3. The Board of Directors have been very active since that time, never giving up hopes of seeing the project through to completion. The Board, of course, met with many problems that at times were disheartening, they never gave up. They have met these problems face to face and have worked them out, I believe, to the satisfaction of all parties concerned.

4. The need for irrigation water is never ending. To avoid disaster of drouth in this normally low rainfall areas.

5. With the proper utilization of the available water in the North Loup River Basin, which asjoins the sandhills ground water reservoir, I am of the opinion that the North Loup Project is feasible and very much needed in Nebraska. The proposed dam on the Calamus River northwest of Burwell, which is the upper end of the project, would retain good clean fresh water which would be used throughout the entire length and breadth of the project.

6. Construction of the proposed dams on the Calamus River and the Davis Creek dam will stabilize the flow of water in the North Loup River, resulting in less flooding along the river during times of excessive and heavy rains, and the retention of the water which can be used for irrigation purposes.

7. Adding an additional 52,570 acres of good irrigable land, by using one of the State's most valuable resources, water, thereby stabilizing the income of all the people, not only the area which it serves, but throughout the entire State.

8. Provide assurance of grain, hay and forage for livestock, all of which are important enterprises in the State of Nebraska.

9. Help stabilize our underground water supply in the State, which is being heavily drawn on by pump irrigation in other parts of the State. I wish to add at this time that we find that in numerous areas of the State the present irrigation wells originally installed at normal pumping depths have had during the past several years had to be extended an additional 20 up to 40 feet of casing added in the wells in order to obtain the normal production of irrigation water from these irrigation wells. This of course is becoming alarming due to the lowering of the static water level in the State. It is my opinion that additional gravity irrigation will help stabilize this underground static water level and maintain this to a more uniform and normal level. In some areas of the State where heavy irrigation pumping has been practiced we find the artesian wells and stock wells have gone dry during the heavy irrigation pumping season. Therefore, it is of vital importance to retain our surface water from lakes and streams by use of dams and redistribute this water in these irrigated valleys through the growing season to maintain our static water level. In other words protect, use and carefully supervise our greatest resource in the State of Nebraska namely water.

10. The above recommendations provide much more needed water for recreation, and fish and wildlife opportunities for all people, not only in Nebraska but adjoining States, at the proposed reservoirs and diversion works.

I am hopeful that you and other Members of the Committee will find the above recommendations helpful in your final decision and recommendations for the approval of funds to support the Twin Loups Reclamation District in the Committee hearing on Interior and Insular Affairs.

For the past 15 years, I have been employed by The Farmers National Company, 4820 Dodge Street, Omaha, Nebraska. This is the largest Farm Management Company in the United States. Five years I was active farm manager for this Company at Hastings, Nebraska and the last ten years and presently District Manager in the Omaha Office with 14 farm managers and approximately 685 farms under my direct supervision. These farms are mainly located in Central, North Central and Eastern Nebraska. The remaining farms under my supervision are located in Southern and Eastern parts of South Dakota, Southwestern part of Minnesota and Northern Iowa. I find that of these approximately 685 farms, under my supervision, approximately $\frac{1}{2}$ or a little over 115 farms are under irrigation, some of which are irrigated from canals, dams and reservoirs and others under deep well irrigation. With all of these irrigated farms, one can pretty well be assured of maximum production due to the benefits of irrigation. The same results I am sure would be obtainable from the family farms located within the boundaries of the Twin Loups Reclamation District. Your favorable consideration of the above project I am sure would be a great asset to the State of Nebraska.

For further information regarding my experience and qualifications, please refer to the attached reference "Experience and Qualifications Statement".

Sincerely yours,

RUSSELL JENSEN,
District Manager.

PORTLAND CEMENT ASSOCIATION,
Minneapolis, Minn., March 14, 1972.

HON. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate,
New Senate Office Building,
Washington, D.C.

DEAR MR. CHAIRMAN: The following is a statement in behalf of S. 2350 and S. 352, bills to re-authorize the North Loup Division of the Pick-Sloan Missouri River Basin Program.

The Portland Cement Association is an organization to improve and extend the uses of portland cement through research and engineering field work. The Portland Cement Association does not sell cement and has nothing to do with the marketing policies of the cement companies.

This proposed multi-purpose water and land resource development should be considered an integral part of a broad plan to retain and increase population in and around the project area and help to reverse the flow of people from rural to metropolitan areas. Steps taken now to implement rural development will reflect in the quality of life of generations to come.

A report prepared for the House Committee on Interior and Insular Affairs in 1956 gives the total cost of the North Platte Project in Nebraska and Wyoming at \$22.5-million. Repayment by water users to June 30, 1955 totalled \$16.2-million. The debt to the U.S. Treasury is rapidly approaching full repayment. In addition to this repayment, the Federal Treasury is receiving in excise and income taxes every 18 months an amount exceeding the project cost. A like but admittedly smaller percentage of Federal tax collections to project cost can reasonably be predicted in the North Loup Project. Inflationary trends could increase this percentage of Federal taxes to project cost.

The economic impact of irrigated agriculture on the economy has been set forth in Nebraska Economic and Business Reports, Number Four, dated: 1968. The report concludes that for each \$1 of increased agricultural production \$6.68 of economic impact was generated in Nebraska. Some of this spins off nationally in commerce and industry.

Other testimony will no doubt attest to benefits accruing within and around the project area. We know the members of this committee are thoroughly familiar with the facts that irrigation produces a balanced economy, offsets the effects of climatic vagaries, induces agriculture-related industry, and broadens the tax base.

Nebraska today is a more attractive state, an improved place to live, work, farm, hunt, fish, or simply to enjoy the great outdoors as a result of man-built water resource facilities. Most certainly, none who lived through the dust bowl days of the dirty 30's would hold a view other than man's environment has been measurably improved by the irrigation, flood control and soil conservation projects built since this disastrous drought.

In the project area there exist some irrigation wells. Generally the ground water level is lowering. By the time this project can be built ground water depletion will very probably be at levels that preclude further well irrigation.

There exists strong local support for the North Loup Division. We have long been familiar with this project and we urge your support of this worthy project.

Yours sincerely,

FRED R. McCOMB,
Regional Manager, North Central Region.

STATEMENT OF E. R. HORNER, NORTH LOUP, NEBR.,

Mr. Chairman and Members of the Interior and Insular Affairs Subcommittee on Irrigation and Reclamation: I, E. R. Horner, a Water Well Driller by trade, have been in the Well Drilling business in this area for over 40 years. I have drilled domestic as well as irrigation type wells. We have our home as well as 480 acres of land which is pump irrigated, plus other real estate. We have drilled wells all over this area, ranging in capacity from 600 to 5,000 gal-

lons per minute. We have, I think, the best underground water supply of any state in the union. This state has been very active in cooperating with the Well Drillers Association in logging and recording water levels and geological information for the past 40 years. Consequently, our state has some of the best records of geological data kept anywhere.

A Mr. Condra, Doctor of Geology, was State Geologist for many years, and he used to tell the Drillers our main water supply came from the north country—Minnesota and on west. It came under the shales and hard pans of the Dakotas, under the Missouri River, where the shale is 2000 feet or more thick. Then, as the shale breaks off in the northern part of this state, the water comes back up to fill the large gravel beds in the so-called sand hill area of the state. We know it is under terrific pressure in the sands under the shale cap. Drill down through the shale into it and you get artesian flows 1800 to 2000 feet deep. These shale are almost waterproof. There's no seepage, even to let the water through, until they break off at the northern border of the state. These sand and gravel beds then filter the water on south to come out and make up our rivers, the North Loup, Middle Loup, and Calamus.

As you know, the Loup River has the most even year round flow of any river in this nation. Is this from rain or snow recharge? No, this is from underground recharge. We have some fluctuations during heavy pumping at irrigation time, but it is right back to normal again after the season shut off. State readings, year after year, do not vary more than a few inches.

The land that would come under this project is mostly rolling land. It is very difficult to gravity irrigate it. The level land that came under the project years ago, when it was first planned, has now been mostly developed by pump irrigation and ninety percent or more of that is watered with a dual purpose system—a combination of part gravity and part sprinkler system so the acreage to be watered has been substantially reduced. It is being reduced more and more as farmers are putting in more pump irrigation every year. I doubt very much if there is a full 160 acres under the whole project that could be irrigated gravity type, so a farmer would still have his sprinkler system to maintain. He would have to pick the water up from his canal and pump it to the rolling ground.

Feasibility of payoff? With the terrific cutback on acres left to pick up for irrigation, I can't possibly see it. With the lost of acreage by canals, laterals, dam site, etc., and the extra acres still being cut off by pump irrigation, it seems about fifteen years late. Wherein the plans call for 1.51 feet of water, it takes 2.50 to 3.00 to produce a corn crop. That was, and still is, the trouble with the present North Loup Irrigation Canal. They started with 1.50 acre feet of water, lost half their crop from drouth. Many of them supplemented with pumps and wells, then cancelled out their water contract with the North Loup Irrigation Canal. These that did not were able to purchase another 1.00 acre foot of water at additional cost to produce their crop. The North Loup Canal was a choice strip of land along the river valley, and it did not pay off. The land owners are buying it back now for .15¢ on the dollar.

Mismanagement? Not necessarily. It was due more to competition, pump irrigation, low prices on farm produce, etc. Had they been getting a fair price for their produce, they could have paid more for the water and at least have kept the interest paid on the canal. It is true that their yield went up, but their overhead and costs of equipment increased so much more, and they received no more for their corn than they had twenty years ago.

I do know that some of the farmers that were in favor of the project signed up for it, but do not want the water when the project is completed. The reason they signed up was because they were told that if they didn't take it, it would be diverted down into Oklahoma or even Texas.

Recreation spot? Yes, but only for a few. Not for the people who would be taxed for it. With the fluctuation on water level in the dam, I can't see too much fishing and boating from a dry dock.

You may feel that I am opposed to this project in a business way, due to being a well driller, but I am not as it is a very small area of our drilling operations. I just can't see throwing good tax money away when it can't possibly pay it's way. Due to above reasons, I make a plea that the Subcommittee turn down proposed project.

Sen. HENRY JACKSON,
Chairman, Committee on Interior and Insular Affairs,
Old Senate Office Building,
Washington, D.C.

DEAR SENATOR JACKSON: When I canoed the Calamus and North Loup rivers last August, there was some talk of an irrigation dam on the Calamus. More recent intelligence indicates the matter has progressed beyond the talking stage. I am solidly against this proposal.

It is my understanding that the original Environmental Impact statement was both insufficient and had not been reviewed by all of the proper authorities. This alone should stay action on any approvals or appropriations until and unless the Environmental Impact statement is acceptable—and accepted.

One major consideration I did not know of earlier was that this project, if completed, would include 275 miles of canals and ditches which would take more than 8,000 acres of prime valley crop and hayfield land out of production for the sole purpose of moving water from where it is now readily available to marginal land which would never be as productive as the valley is now. That is, what valley would still remain if the Calamus were to be dammed.

Irrigation ditches are hard on kiddies, livestock and wildlife, to say nothing of the ruination of the integrity of fields presently in crops or hay. Central pivot irrigation systems which I saw along the river last summer appeared to be very efficient. They take very little land out of production, and did not appear to have any adverse effect upon the river itself.

Most of the valley farmers and ranchers are vitally opposed to the project because it would cost them their homes and their livelihoods. "Benefits" to someone else look extremely doubtful.

Tax dollars spent to take water out of the valley at the expense of the valley would be a national travesty as well as a local disaster.

Though ideas have begun to swing the other way, a lot of people still think that population loss is bad and that population growth is an asset per se. Neither of those postulations is quite true. Irrigation, I believe, would make it possible for still fewer people to work more acres which would lead to a more rapid loss of population in the affected area.

The Bureau of Reclamation has not released any figures I have seen relative to reservoir management. Recreation, draw-downs, and downstream water releases usually are incompatible. I don't see how the project can be justified for any stated use, or how it could receive Congressional approval without specific provisions for how many acre-feet or cubic feet per second would be put to what uses. Releases downstream—or lack of them—would make quite a difference below the impoundment. Releases and water drawn off for irrigation or other water supply purposes creates too much shoreline fluctuation for man or beast to use or enjoy.

Inundation of some 8300 valley acres would completely destroy that many acres of fish and wildlife habitat which in the immediate environs of the river is just about the *only* fish and wildlife habitat for several miles around. Most trees of any size along the river are at least 100 years old. They cannot be transplanted, nor would re-plantings produce mature trees any more rapidly.

To summarize, any "benefits" to be realized by construction of the project would be limited to those outside the immediate area, and would accrue at the expense of present landowners and the taxpayers of the entire United States. It just doesn't make sense.

Sincerely,

(Miss) NANCY C. JACK.

STATEMENT OF HARRY H. FOTH, ORD NEBR.

Mr. Chairman and members of the subcommittee: I moved on this farm in the spring of 1929. At that time we bought 320 acres of ground of which 160 is now in the Twin Loups Irrigation Project. Since that time we have purchased another 480 acres adjoining this land. This land is all in the Irrigation Project. After our son married he bought another 160 acres close by which is also in the Irrigation Project. Through the years we have continued to improve the land. We now have three wells on the 960 acres in the project.

On the 160 acres a short way from home we have 147 acres of farm ground. This land is all in grass which we irrigate with one of the three wells. On the last page you will find a photo of this land and an explanation of the farm.

With our tow-line we can irrigate 147 acres for a cost of \$900.00 a year. This includes fuel and oil for the motor and repairs. We cross the farm 4 times putting on 8 inches of water each time. This makes 32 inches of water or a cost of \$6.12 per acre. Under the Bureau's irrigation project we can irrigate 64 acres at a cost of \$10.60 an acre. With this project we are to receive approximately 18 inches of water. We would not be able to leave this land in grass as it is not level enough to flood irrigate. Now, I ask you, which is the better irrigation system?

The remainder of our land is irrigated by gravity and sprinkler system. We are able to plant corn in half-mile rows. We know the main canal goes through this land. We do not know where the laterals will be. We know that we will have shorter rows which will be inconvenient for large machinery.

We also will lose some of the best producing ground we own. This land will go off the tax rolls. Also the grain it would raise and the cattle the grain would feed goes off the tax rolls. Is this progress?

We have used one well more than 15 years and the water level has not lowered. In Valley County the proposed Twin Loups Irrigation District covers land where there are now more than 140 wells. The US Dept of Agriculture ASC office in Ord, Nebr., allows each farmer 130 acres per well. At this rate there are nearly 19,000 acres of irrigated ground. Valley County has only a little over 20,000 irrigated acres in the District.

It is our understanding that in the entire project there are nearly 19,000 acres in lakes, dams, canals and laterals that will be taken out of production. In other words, nearly every acre that would be irrigated in Valley County is being taken out of production somewhere.

There are many pivot systems in our area with more going in. I do not know how these farmers will be able to operate them with open laterals and canals. It would be a large financial loss if the farmers have to sell these as second hand machines. Also the dealers in the area will lose business.

I believe the users of water should have the final say-so of whether they want this project or not. I know many civic organizations have promoted it. I understand no farm organizations, which are made up of the farmers of the area, were in favor of the project discussed here. I think this speaks on how the farmers feel.

BURWELL, NEBR., March 17, 1972.

CHAIRMAN AND MEMBERS OF SUBCOMMITTEE.

DEAR COMMITTEE MEMBERS: I (Etta Sebesta) am a native of Loup County, having lived almost all of my life in the area.

The ranch home where I spent ten years with my late husband was located two miles from the Calamus River. I still own a life estate in the ranch, so naturally, am interested in the community.

At the present time, I am teaching in a school located in the river valley. If the dam materializes, this school and the home of families in the community will become non-existent.

The area around the proposed dam site is of sandy soil, which, if disturbed, and the native grasses torn up, can very easily create serious erosion problems. If the reservoir is used for recreational facilities, the added traffic will, in my estimation, be likely to create problems, not only in soil erosion, but in adding to the pollution and destruction of wildlife habitat, as well.

Added to the foregoing objections, some consideration should be given to the effect this project will have on property owners in Loup County.

According to statistics reported in our local newspaper 12,240 acres of land will be removed from the tax rolls. At least 18 families will have their homes either destroyed, or their farms reduced too drastically to continue in operation, with a forfeiture of \$836,675 from the assessed tax valuation for Loup County. (These figures were taken from a report in the Mar. 9 issue of Taylor Clarion).

In view of the fore-going facts, and the lack of job opportunities, I feel that we can ill afford to have this land diverted for the purpose proposed.

Very respectfully,

ETTA SEBESTA.

BURWELL, NEBR., March 15, 1972.

CHAIRMAN AND MEMBERS OF SUBCOMMITTEE.

DEAR COMMITTEE MEMBERS: We are not for the diversion dam on the Calamus river for the following reason's.

1. We do not think that the water from the North Loup Valley should be diverted to other area's until a thorough check has been made of the Valley to determine if it is possible to use more water farther down the Valley; possibly by use of storage Reservoirs, which could be filled in off-season for Irrigation.

2. We have been short on our annual precipitation now for several years; this may in time lower our water level and cut down the out-put of some wells in the Valley. We do not believe there's no such thing as these wells "not" going dry; we feel there is more water being pumped from the ground than there is going back in to it.

3. The 900+ acres that the Reservoir will cover is good wild life area; and a Blue Heron Herony; and a real nice Ranch Home; and other home site's; plus good Bottom-land will be destroyed; also quite a few large trees that takes a life-time to grow.

We feel this area should be preserved.

Yours Truly

Mr. and Mrs. ERNEST SEWELL.

MARCH 8, 1972.

To Whom It May Concern, Chairman of Subcommittee:

I would like to make a few comments on our trip down the Calamus River in June, 1965

There were five adults and 12 Boy Scouts who made this 45 mile trip with Canoe packs tents and food for 5 days and nights.

The Scouts have made a number of similar trips on other Nebraska rivers, but we all felt this had to be the most enjoyable of all.

My son-in-laws who live in the Burwell area and myself contacted each rancher along the river for permission to camp on their ground, and have access to water.

The permission was granted by each rancher. I have met several since that time—have hunted deer and quail on their property—so have very good relations whenever we meet.

I would like to mention a few of the high lights we enjoyed.

We started out just beyond the Fish Hatchery—which I assume belongs to the State Department. This place was beautiful. We started down the river early the next morning (on Monday) and spent 5 days traveling the Calamus to Burwell—getting out in the park.

Early each morning—deer was sighted the boys would watch—each trying to the see one "first". Wild life was plentiful as well as beautiful.

We carried every thing to exist—except water. When we would pass near a ranch home, we would ask for permission the get necessary water—all were most accommodating. We did find several springs along the way—so could use it.

Every one had a great time—swimming and enjoying the clean, clear water.

So in closing, I want to say—I would enjoy another trip down the Calamus in a canoe—some time in the future.

Yours sincerely

IVEN A. MAY,
Assistant Scout Master, Troop 64.

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE: This is a letter concerning the Twin-Loups Irrigation Project, 640 acres which will be under the district, and John L. Koll Sr. and John L. Koll Jr., who are the owner and operators of these 640 acres.

John L. Koll Sr. is 75 years old, was born and has lived on this place for all of his life. John L. Koll Jr., 43 years old has lived here also for all of his life.

In 1905 the first stock well was drilled on this place with static water level of 92 ft. In 1955 we put down an irrigation well, located about 500 yds. from this first well. The static water level in this well was 90 to 95 ft. In 1970 we drilled the second stock well, not because we ran out of water, but because our old well was rusted out and was just plainly worn out. The static water level

in this new well was also 92 ft. It would seem that our underground water table is pretty stable.

If this project goes through we will loose in a 56 acre field, approximately, 25 acres. This does not mean off one end or the other, but diagonally across this field, putting 10 acres on the lower end of the canal and 15 acres above the canal.

On this 640 acres, we irrigate about 85% of 250 acres by gravity and the rest through sprinkler, from 2 irrigation wells that were both drilled in 1955. In 1955 we were pumping these wells from about 175 ft. with a 200 ft. setting in them. In 1971 we checked the draw-down in these wells during probably the most severe pumping time and also the driest season we had since putting in the wells and were pumping both from 175 ft. draw-down. Accordingly, we are not losing our underground water.

We think this project will just be another added cost to our projection with absolutely no benefits. We will absolutely not take water from this project and others in this project who now have wells, also will not take water. Another really bad part of this project is that the main canals and laterals will all be above ground. Even if this should go underground, it will be unfeasible, due to cost.

Sincerely,

JOHN L. KOLL Sr.,
Owner.
JOHN L. KOLL Jr.,
Operator.

BURWELL, NEBR., March 10, 1972.

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE: We are against the Twin Loups Reclamation Project in Loup County because it would destroy the Beauty of our community and the homes of many ranchers.

The Calamus River is a beautiful river; it has pure water which very few rivers in the nation has; it provides fishing hunting and canoeing for many people. Boy Scouts from different parts of the country use it for camping, canoeing and wildlife observation. The water is used for irrigation and there is "No Pollution" problem.

There is a wonderful "Shelter Belt" which is one of the best, if not "The Best" in Nebr. that would be destroyed. It provides a refuge for wild life, camping for Boys Scouts, protection for cattle from the cold winds besides the beauty that it adds to our community.

The Valley View historical site has been here for years. There is a nice modern school house that is in use and it serves as a community center.

So, if this project goes through it would destroy one of the prettiest and productive valley in the county. It would take our home and we wouldn't be alone as there are a number of other ranchers that would be affected. We would have to find some where else to live.

Yours truly,

Mr. and Mrs. CYRUS WRIGHT and SON.

MARCH 9, 1972.

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE: My name is Leland Scherzberg. I am forty-three years old. I was born in and have lived my entire life in the area which will be directly affected by the North Loup Reclamation project. I farm and ranch on 3,700 acres in partnership with my mother. Our principal crops consist of corn and alfalfa, and the raising of feeder cattle. I am married and have three children. Over the years I have held the usual school and church offices that any responsible citizen does, including seventeen years as a member of the county Agriculture Stabilization and Conservation Committee. In this capacity, which deals with all farmers, I believe I have learned to view situations affecting many people over a broad area rather than just as they affect me. It is my opinion that the North Loup project is unnecessary and unjustified for the following reasons:

1. The Reclamation Bureau tends to overstate the amount of acres which will supposedly benefit from this project and underestimate the acres that will be lost forever for the production of foodstuffs. The Bureau estimates that 10,000 acres will be used for the Calamus reservoir alone. This is not including

the hundreds of acres that will be used for the rerouting of roads around the reservoir, the borrow pits (these are not in the area to be covered by water), canals, etc. Nor does this figure include the acres lost to the diversion dam on the North Loup River and the ground covered by the water. Besides this there will be several thousand more acres lost in the hundreds of miles of main canal, laterals, and the Davis Creek Reservoir and pumping stations.

All of this land loss, which would probably amount to between 15,000 and 20,000 acres and not even mentioning the enormous cost and loss of family farms, all this to irrigate an estimated 50,000 acres, including a good many acres of backs and steep side hills which the farmers themselves say are not feasible to irrigate, and of which the majority is already irrigated by the farmers through their private financial means.

2. Since such a large amount of the project is already watered by irrigation wells, the bureau thinks this project may be necessary to recharge the underground water supply of the irrigated areas. Although this sounds good there is no proof whatsoever that the project will do this. Unless or until this can be proven I believe this project is wholly unnecessary and a ridiculous, costly experiment.

Respectfully,

LELAND SCHERZBERG.

OMAHA, NEBR., March 8, 1972.

DEAR MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE: Upon notification of the pending dam project on the Calamus River in North Central Nebraska, I was impelled to write to your committee hearings.

As a Minister with Youth in a Metropolitan area such as Omaha, I find that travel and outdoor living is a valuable tool and resource for getting into their lives and their struggles. The past two years we have used the Calamus River for canoe trips with our Senior highs. Our departure point is located at a Church Camp near Burwell, Nebraska. This is a tremendous opportunity for young people to draw away from the hectic culture which they must participate in, to a place where reflection and deep meaningful relationships are developed.

I find that these kinds of experiences are very much attuned to the "adventureous" spirit of youth, to the "getting back to nature" idea that young people of today exemplify. The different kind of beauty that they are exposed to along this area broadens their world view, as well as facilitates the learning process for them.

Flooding that area will be a loss that is not measurable from an economical frame of reference, but something which is not seen. The style of relationships and personhood, the growth and development of people.

I urge you to labor hard over your decisions and broaden your perspective to a far reaching range in order to make your recommendations.

Sincerely,

HAROLD D. YOUNGBLOOD,

Minister With Youth.

Countryside Briardale United, Church of Christ.

BURWELL, NEBR., March 10, 1972.

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEES CONCERNING the dam of the Calamus River and Twin Loups reclamation project in Loup Co:

This dam would ruin our home as well as our livelihood. If this goes through it will ruin our family sized cattle operation of 200 cows and calves, plus the carry over of yearlings.

Anyone who has lived on a cattle ranch and raised cattle in the sandhills of Nebraska knows hay is essential, and plenty of it, if the cattle are to survive and, of course, we know the ranches won't be here long if the cattle aren't. All of the hay for this ranch comes from valleys along this Calamus River. If these valleys, fields and meadows are covered with water in winter and sand in summer, it isn't going to be a pretty sight to view or profitably wise either.

You might go back in the hills and hay but this isn't profitable when the hay won't cover the mower bars and make $\frac{1}{2}$ ton or less to the acre.

This particular ranch, where we live, consists of 4,000 acres of hay meadows, fields, and pastures. We have lived here nine years and it is one of the best in the area. We lease it from Joe Snyder and Virginia Banks. The beautiful, exceptionally good shelter belts provide shelter for the cattle during the winter. Shelter is a must if cattle and ranchers survive the severe blizzards that hit this part of the country.

Lots of people from Burwell and surrounding areas and, possibly including yourselves, think this will be a great asset to Nebraska and the country in general. But if they figure on storing water in winter and pumping it out in summer it will only serve as a sand beach and we already have plenty of sand blow outs.

If people are wanting irrigation let them irrigate from their own rivers as the people in the Calamus Valley are irrigating from the Calamus River; instead of sending it across Nebraska into another water shed.

People from all over Nebraska and surrounding states come here to camp, hunt and fish. They all go home with the satisfaction of enjoying mother nature at its best and not something man has tried and failed. How many of you have had the privilege to see a hen pheasant with her babies, a quail and her family, the deer, turkeys with their little ones, or cows with baby calves lying in the tall grass? This is quite a satisfaction to any rancher who lives in the Calamus Valley or surrounding areas.

Every farm paper or news paper you pick up reads, "Keep the family sized ranch and farm going; we need more of them". I'm sure such a construction as this is no way of keeping them.

Lets not ruin mother nature and God's great creations by such a man made project.

ELDON and DARLENE LARSEN and CHILDREN.

ORD, NEBR. March 14, 1972.

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE: My occupation is full time farming—raising corn, grain, hay and livestock. I have lived and farmed in this area since 1920 and know this area through plentiful rainfall with abundant crops, through drouth years with crop failures to the present development of well irrigation. I am in the area which is covered by the proposed Twin Loups Irrigation Project.

I have four irrigation wells with sufficient water to irrigate the 640 Acres of land that I own, which is in the area of the proposed project. We irrigate with underground pipe and aluminum gated pipe and a pivot system. We have no open ditches. I object to open ditches, canals and laterals because the project would cut up and destroy our valuable irrigated land, cause problems and dangers to our livestock. It would make inconvenient access to some of the fields and make it difficult to farm land that is all cut up with ditches. Also, it would destroy our wells which have been established at considerable work and expense.

Our present system is functioning very well, as is that of our neighbors. Those who are farming have already developed their land for irrigation from wells so there would no longer be any benefits to us from this project. We can do it cheaper this way than the proposed project would do. We can irrigate when crops need it, not have to wait for our turn to get water, which in some instances might be too late, or to irrigate when it is not necessary or pay for water we would not use.

The government is creating additional problems by irrigating more acres, than paying farmers to raise less.

Sincerely yours,

JOSEPH J. BONNE.

STATEMENT OF ROLLIE R. STAAB, ORD, NEBR.

Mr. Chairman and Members of the Subcommittee: I am a 33 year old farmer and cattle feeder. I am interested in this project because it will affect the community and future of my family. After spending two years in the army, 18 months in Germany, I came to this community as a hired man for a cattle feeder. I chose this community because it is productive and progressive, with the latest equipment and methods being used. This area is very well kept with

neat and very modern farms, buildings, and equipment. I wanted a fine, up-and-coming place to raise a family.

Eleven years ago, I had an opportunity to buy a farm. I found that with the low prices of farm crops, I would have to supplement farming with something else. I started feeding cattle and hogs. I now feed my crops to cattle and this operation has kept me in the farming business. I own 860 acres. I operate 1380 acres. 800 of this is pasture and 580 acres are farm land. 520 acres of this land are within the district. The land description is as follows: 160 acres NW $\frac{1}{4}$ of Sec. 8-18-14; 160 acres, with irrigation well on it, NW $\frac{1}{4}$ of Sec. 7, 18-14 and 200 acres with irrigation well and pivot system, SW $\frac{1}{4}$ of Sec. 7, 18-14 plus S $\frac{1}{4}$ S $\frac{1}{2}$ of NW $\frac{1}{2}$ of Sec. 7, 18-14 of Enterprise Township, Valley County, Nebraska.

The land in this area is very productive. But it has its problems. Very little of the land lays with a gentle slope suitable for gravity irrigation. It is a rolling land with lots of ridges and runs in many directions. Even after it has been leveled, if it is to be gravity irrigated, the rows must run in many directions.

Due to the progressiveness of the area, I, like many others, started irrigating. Ten years ago, I leveled some land for gravity irrigation. It cost over \$100.00 an acre. That was only the beginning of my problems. I had to use gated pipe to cross the ridges and ditches getting to the irrigated area. I also buried some underground pipe so the field wouldn't be so chopped up. The water doesn't run through evenly; some areas get more water than others. There is also loss of evaporation. It takes more labor to check the rows three times a day and then there is always some loss of water at the row ends. Farm labor is extremely hard to find. If it isn't checked often there is a tremendous loss of water. On some fields it can be seen running down the road ditch. Then, because of the land running in many directions, there are many short rows and the fields are very chopped up, making it most unsuitable for the use of the large machinery being sold and used today. I found it has taken the last 9 years to get the ground back to productivity, because I lost so much top soil leveling. It was an added expense fertilizing to regain this productivity, plus a loss in crops due to poor soil. But this still didn't take care of the problem. Mainly, and most important, after all this trouble and expense, I lost some crops in dryer years due to the fact I couldn't cover enough acres with the gravity irrigation system because it takes longer to cover the ground and it takes more water.

Naturally, like many others in the community, we looked for a better method—one that was updated. We went to the sprinkler irrigation and pivot system. I can cover 133 acres by the pivot system where I could only irrigate about 75 acres with the same amount of water. My labor is cut down 95%. This is especially important as farm labor is so hard to find; many farmers who have in the past employed people, must now work alone. In using gravity irrigation, it takes one person almost full time to just handle the water. Someone has to run the machinery and do the other work. You can see where this leaves the farmer who farms by himself. I find it takes about 3 acre feet of water to raise an adequate crop and more in extremely dry years, when we used gravity. The project estimates a farm delivery requirement of 1.51 acre feet of water, which is only half the amount necessary to raise an adequate crop.

My personal concern toward this project is that the canal will cross my farm and will go through under my pivot system. At the present time, with the pivot irrigation, my farm is worth about \$90,000 saleable value. If the canal goes through my place, it will divide the farm in half so that it will hardly be worth dryland price, which would be about \$30,000. In addition, we use the corn stocks for winter pasture. It would require extensive fencing which would make two small pastures; the question would be how to get the cattle across the canal to the other pasture. This would bring many problems to the cattle feeding situation.

Then there is the problem of tax rolls. If the cattle feeding operation is cut back, it will be a loss to the personal property tax rolls of our county.

You will note in the project report that total allocated cost as of the 1971 reevaluation was \$74,607,000, of which \$73,670,000 is reimbursable and \$937,000 is nonreimbursable. This means that irrigation must pay for almost all of the project cost, and if they do not secure sufficient water users, it could mean that everyone within the district would be charged equally to reimburse the

government for the cost of the project whether they receive any benefit, no matter if they use the services. This is not fair to those many farmers who cannot use gravity, or to the person who has already developed his farm. I am concerned that because of the extensive development of wells, sprinklers and pivot systems, that they will not get sufficient water users. It is not good judgment to put in a project that is not up-dated and then have to burden the already heavily burdened tax-payer with more tax dollars and no benefits.

I am concerned about the damaging effect this could have on the future of the community. Due to the additional tax burden, the damage from canals and ditches and lack of enough water at needed times crop losses would follow. If every farmer is forced to pay, it could cost the non-user enough money to prevent him from developing his acres that cannot be used by gravity. The above reasons could hurt the economy of this area. I would like to say that I am not against progress, and I know that progress always hurts some people. It would be easier to understand the hardships it will put on my operation if this project were feasible.

I am against this out-dated project because: Gravity irrigation requires more water, covers less ground, requires more labor, has more loss to evaporation, does not water evenly. Leveling of ground causes loss of top soil and productivity. It does not allow enough water to grow crops. It will create a tax burden to the people. Hardships of the many ditches and canals. Because so much of the land is not suitable for gravity irrigation. And because this progressive area on its' own has surpassed the need for this by developing itself with more modern methods and systems. I am not an isolated situation; this will happen many times over. I believe this marginal project should not be authorized because the system used is as out dated as the figures used to represent the project. Much of the land the project is seeking to develop is already developed by superior systems which will save water and money as the end result.

MARCH 17, 1972.

DEAR SENATOR ANDERSON: We bought our 680 acre ranch one year ago without the knowledge that an irrigation project would take approximately 75 per cent of our land. This includes our ranch headquarters. We have added a new home, a new well and water system, new sewer, and several miles of new fence.

This project would cause us considerable loss as we do not feel we could replace the investment we have made. We would sincerely appreciate your careful consideration on this matter.

Yours truly,

RUPERT AND IONA BRISTOL.

ORD, NEBR., March 10, 1972.

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE: This is a letter concerning the Twin-Loups Irrigation Project. We, Walter and Victoria Conner, ages 58 and 59 Respectively, own and operate 320 acres of land, which will be under the district. I, Walter have lived here all of my life. We have an irrigation well, drilled in the year of 1956, which we irrigate from by gravity and sprinkler line.

This proposed Project will go diagonally through our best irrigated land. We cannot see any good in this project as we absolutely will not take any water from it and many others who now have wells think the same. The water level is not dropping any here.

This is only an added cost and the ruination of land already developed for irrigation, as is nearly all the good land in the district.

Why would it be feasible to ruin the good to try to irrigate what is left?

Sincerely,

WALTER CONNER AND VICTORIA CONNER.

ORD, NEBR., March 11, 1972.

MR. CHAIRMAN AND MEMBERS OF SUBCOMMITTEE: We are writing this letter to let you know we are opposed to the Twin Loups Reclamation Project, and the reasons we are opposed to it.

First of all it will damage more valuable land that is already being irrigated by wells, than it would benefit. We also find there is already as much

land irrigated in the district as this canal would be irrigating, so why cut up some of this best land. It would also be taking a lot of land out of production and taxation.

We feel that any farmer that wanted irrigation has already put down a well and has his land all laid out for it. If he hasn't it shows he just doesn't care to work that hard, as farming takes a lot of hard work and good management. Why, try to raise more, with these low prices on grain, then the government has to pay out a lot of money to reduce.

With the high prices to be paid for machinery, a young farmer just can't start, even some that already have irrigation are selling out because they can't make a go of it. If this land gets cut up, it will only discourage more of them, many farms with pivot systems will be completely destroyed.

Another thing these petitions being signed in the city, you will find most of them being signed by merchants and city folk not knowing how it will hurt many farmers, and seek only recreation, or by farmers that the canal won't be cutting through their land.

Please take all of this into consideration and lets not try to do more harm than good, we are sure the good Lord won't let us down if he finds we need more water down below.

Respectfully yours,

CHARLES VANCURA, Jr.

CRETE, NEBB., March 18, 1972.

Senator CLINTON P. ANDERSON,
Chairman, Subcommittee on Water and Power,
Washington, D.C.

DEAR SIR: We want to express opposition to the construction of the Norden Reservoir on the Niobrara River and to the North Loup Division Project. Our reasons are based on:

- (1) Our reviews of costs and benefits as computed by economists of the Quality Environment Council,
- (2) Our fear of the loss of important biological areas,
- (3) Our objection as taxpayers to subsidizing more irrigated plow crops in the face of many complaints by farmers about markets already glutted, and
- (4) Our wish to retain wild areas for rare recreational experiences.

Please give this your careful consideration.

Yours truly,

Mr. and Mrs. EVERETT W. GROSS.

HAYS, KANS., March 16, 1972.

DEAR SENATOR ANDERSON: As you can readily see we are living in Kansas, Nebraska's neighbor to the South. What I am writing to you about concerns a project in your state that I have heard about recently. I speak of the proposed O'Neill Unit project to be constructed on the Niobrara River.

The details of the project need not be gone into here, as you are no doubt familiar with them. Suffice it to say that, from the information I have encountered, the project seems unacceptable and that I am in opposition to it. I say this, not as a Nebraskan perhaps, but as an interested and concerned member of the United States.

The large numbers of interesting and unusual species of birds, trees, animals, etc. make it a very unique and beautiful river. Such rivers are rare these days and must be preserved at all costs.

Another project that has been brought to my attention and that I feel strongly about is the proposed North Loup Project on the Calamus and North Loup rivers. Again, a lengthy discussion is not necessary at this time, but the evidences against such a project are clear and have been set forth by the Quality Environmental Council (QEC).

In closing, let me reassert my opposition to the O'Neill Unit Project and the North Loup project. Both, to me are unnecessary and represent a step backward in achieving a sound Environmental Conciousness.

Very sincerely,

BILL WISMER.

BELLEVUE, NEBR., March 19, 1972.

Senator CLINTON P. ANDERSON,
*Chairman, Subcommittee on Water and Power of the Committee on Interior
and Insular Affairs,*
New Senate Office Building,
Washington, D.C.

DEAR SIR: The fact that I am a member and officer of the Missouri Valley Group, Sierra Club and a member of other local conservation organizations should attest to my position in *opposition* to the above named projects on ecological and conservation grounds.

Therefore I would like to direct your attention concerning these projects toward the fact that the primary goal of both projects is to provide water for irrigation of marginal crop lands in order to grow ever larger surpluses of corn. Aside from the drain on the taxpayer that additional surplus grain will bring, the porous soils of this region allow large percentages of surface waters to reach the existing water table thus posing a pollution threat to the water sources of area towns, ranches farms, and stock due to the heavy uses of pesticides, herbicides, and fertilizers necessary to grow crops in this area.

Your vote and the votes of the other members of your subcommittee to kill these projects will be appreciated by a large number of the citizens of this state and of the nation at this point in time and doubly appreciated by future generations as wild, free flowing streams become rare and cherished parts of our land.

Very truly yours,

G. E. BAYLESS.

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